DOCUMENT RESUME

ED 214 056 CG 015 791

AUTHOR Reynolds, Mary Anne, Ed.
TITLE Faculty-Counselor Collaboration in the Developmental Classroom: A How-To Manual.
INSTITUTION Northern Virginia Community Coll., Annandale.
SPONS AGENCY Fund for the Improvement of Postsecondary Education (DHEW), Washington, D.C.
PUB DATE Aug 81
GRANT DHEW-G-007904844
NOTE 63p.; Prepared by Project Intertwine.

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS College Faculty; College Mathematics; College Students; Community Colleges; *Developmental Studies Programs; Higher Education; High Risk Students; *Interprofessional Relationship; Learning Activities; *Remedial Mathematics; School Counselors; *Self Concept; Student Characteristics; *Student Development; Team Teaching; Writing Instruction; *Writing Skills
IDENTIFIERS *Mathematics Skills

ABSTRACT

This teacher's manual, designed to improve the math and writing skills and self-images of entering college students, offers a model for faculty-counselor collaboration within the developmental classroom and focuses on affective and cognitive learning. The first chapter provides an administrative strategy for encouraging faculty-counselor collaboration. The next two chapters provide step-by-step accounts of developmental classroom writing activities in writing and mathematics. The fourth chapter discusses the role of the counselor inside the classroom. The last chapter reviews program evaluation results. The appendices contain course syllabi, questionnaire and survey results, and guidelines for goal setting. (RC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED214056

Faculty-Counselor Collaboration in the Developmental Classroom

A How-To Manual

Prepared by

Project Intertwine
Northern Virginia Community College
Manassas Campus
6901 Sudley Road
Manassas, Virginia 22110
(703) 368-0184
August 1981

Supported by funds from:
Department of Health, Education, and Welfare
Fund for the Improvement of
Postsecondary Education
Grant No. G007904844

Project Director:
Elizabeth S. Grizzard

Project Members:
Patrick Bizzaro
Marilou Giacofci
Stuart C. Werner

Editor:
Mary Anne Reynolds

Typists:
Janet M. Dail
Loretta A. Gray
Sandra H. Menefee

Cover Design:
Karin Shipman

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☒ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

C. W. Shuler

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CG 015791

©1981 by Northern Virginia Community College

Foreword

This is a how-to manual, an educator's cookbook for improving both skills and self-images of students who enter college with insufficient math and writing background for success in college-level courses.

This manual offers a model for faculty-counselor collaboration within the developmental classroom, a combining of affective and cognitive learning proven successful for developmental students at Northern Virginia Community College's Manassas Campus.

Produced with assistance from the federal Fund for the Improvement of Postsecondary Education (FIPSE), the chapters which follow trace the evolution and present operation of Intertwine, Manassas' approach to reaching a student audience that has either forgotten or never learned certain modes of inquiry and communication necessary for an academic setting.

Intertwine Project Director Dr. Elizabeth Grizzard, dean of student development at Manassas Campus, begins with a chapter written from the viewpoint of a campus administrator on how to encourage the process of faculty-counselor collaboration. Faculty members Dr. Patrick Bizzaro and Marilou Giacofci then provide a step-by-step account of developmental classroom activities in their respective disciplines of English and mathematics. Finally, Stuart Werner, a counselor who furnished the major advice on the role of the counselor inside the classroom at Manassas, offers a descriptive section especially for student development personnel who are interested in a similar project.

This manual is for administrators interested in developmental education, teachers of developmental English and mathematics, and student development personnel. It is, in fact, for all in education who are committed to building whole people.

Table of Contents

		Page
Chapter I	CREATING THE CLIMATE FOR COLLABORATION	3
Chapter II	INTERTWINE AND DEVELOPMENTAL WRITING	
	Choosing Terminology to Reflect Our Goals	7
	Evolution of a Concept: Intertwine's Beginnings	8
	Freeing Students to Learn & Teachers to Teach: An Orientation to Developmental Writing	11
	Counselor in the Classroom: Improving Self-Concept & Composition Skills	15
	Nuts, Bolts, & Other Ways to Improve Self-Concept	26
Chapter III	INTERTWINE AND DEVELOPMENTAL MATHEMATICS	
	What Shall We Call the High-Risk Mathematics Student?	35
	A Student Profile	36
	Instructional Triad in the Mathematics Classroom	37
	How the Triad Works	38
Chapter IV	A COUNSELOR'S VIEW: BENEFITS AND HOW-TO'S OF COLLABORATION	47
Chapter V	MEASURES OF SUCCESS	51
Appendix A	Verbal Studies Course Syllabus	57
Appendix B	Developmental Studies Questionnaire & Survey Results	58
Appendix C	Programmed Mathematics Course Syllabus	64
Appendix D	Guidelines for Goal Setting	66

Chapter I

Creating the Climate for Collaboration

Dr. Elizabeth S. Grizzard, Dean of Student Development
Northern Virginia Community College, Manassas Campus

My favorite story about perspective is that of an artist, a minister, a surgeon, and a cowboy who stepped off a sightseeing bus in order to have a really good look at the Grand Canyon. One by one they peered over the rim, each with a different reaction to the scene before them. "What a glorious handiwork of the Creator," the minister intoned. "What a beautiful canvas made from such a bountiful palette," the artist vowed. "What a terrible gash on the breast of Mother Nature," the surgeon said. When the cowboy's turn came, he looked over the rim, shook his head, and swore, "What a helluva place to lose a cow."

An administrator's perspective is frequently so reality bound, so circumscribed by budget, so curbed by legal considerations, that it is a delightful experience to recount how Project Intertwine, our collaborative classroom effort in developmental studies, was an outgrowth of an administrative philosophy worked out by the campus Provost and subscribed to by the staff as they were employed. The philosophy was based on instructional faculty and counseling faculty being seen as equals working together, thereby avoiding the turf wars that flare up in community colleges between instructional staffs and student development staffs.

The problem with describing Project Intertwine as a successful academic experiment is the same problem that one encounters at the end of a successful trip to Europe, let's say. The slides, mementoes, and guidebooks are most welcomed when some other traveler is getting ready to cover the same ground and wants to know what to expect or when a previous traveler wants to compare trips. The readers of this chapter, I anticipate, will be interested in developmental studies either to prepare to work in the area, or to compare notes because they are presently involved in the field.

It is, therefore, the purpose of this chapter to describe a way of working with developmental studies in a community college with an open door admissions policy. Specifically, I will relate how the smallest campus of Northern Virginia Community College, a campus of some 2600 students in a total college population of approximately 34,000, set about to make developmental studies both a collaborative act between counseling faculty and teaching faculty and an initial act of liberal education for the student.

It may be helpful to step back a moment and to look at a picture of community college students who enroll for classes in developmental mathematics and English. When these students enter developmental courses, they usually have a background that is marked by time away from studies or insufficient preparation in the subject area. Their previous classroom experiences with mathematics or English probably have been frustrating. Many of them feel that they have been talked at or talked down to. At some point they have stopped participating in their own education, and by the time they reach us, it has been a long while, if ever, since they engaged in satisfying intellectual dialogue. Developmental students are often reality bound and find it difficult to build concepts involving any experience which they have not had. They work; some raise families; they live close to a metropolitan area, but their experience is basically suburban.

No one is presumptuous enough to suggest that these students need experiences that are *better than*. Rather, we seek to offer opportunities that are *different from* and *in addition to* those experiences which they have had.

There are certain life management skills that developmental students seem to need. They need more than a programmed text, as we discovered in our early days at Manassas, when students would enroll for class, master a few chapters, take the required mastery tests in the learning lab, and then disappear not to be seen again that quarter. The problem of the vanishing student and the explanation that high-risk students are not entirely accustomed to a stern inner directive to complete material which they see as much as a block as a stepping stone illustrates the need for skills other than academic.

It is surely a part of the mission of an open door admissions institution to offer developmental course work for underprepared students. But it is one thing to offer a developmental program which concentrates on academic skills and quite another to create a climate truly hospitable to people of varied backgrounds and aspirations. Manassas tries to create an accepting atmosphere in which students do not have to defend present values and skills; then we add help with self-esteem, time management, and other life-coping skills so necessary for academic success.

The history of Manassas' developmental studies program is that of a strong academic content and skills emphasis developing within the classroom and a strong personal counseling, goal setting, achievement oriented student development program outside the classroom which began to work together within the classroom setting.

This collaborative program, Project Intertwine, received an intellectual impetus from workshops conducted on the campus by Dr. Don G. Creamer from Virginia Polytechnic Institute and State University's College of Education.[1] Many of the details by which a counselor began to go into developmental classes were worked out by Dr. John Wheeler, when he was a counselor at the Manassas Campus.[2]

In addition to the dual strengths which a teaching faculty member and a counseling faculty member bring to the classroom setting, there is an element of cost effectiveness in the use of counselor time. A counselor learns a great deal about a student when the student is seen in a classroom setting. The counselor also is viewed by the student as someone involved in the learning process. Individual counseling sessions with developmental students appear to be shorter than sessions with students who are from other areas; the sessions appear to accomplish as much, however, possibly because rapport has been established in the classroom.

[1]See "A Community College Administrators' Guide to the Practical Implications of a Transition in Student Affairs," *From Theory into Practice: A Journal for Educational Managers* 1 (Spring 1981), pp. 15-18, in which Dr. Creamer discusses a student development model designed for collaboration.

[2]Dr. Wheeler describes his early experiences in the developmental classroom in "The Manassas Connection: A Teaming Up in Developmental Studies," *Vaspa Interchange*, 5 (Fall 1977).

Students in Project Intertwine find an atypical academic setting. Students are encouraged to talk about themselves. Verbal and non-verbal communication is explored before anything is written on paper. This practice is used partly to allay the awkwardness which strangers to the academic setting may feel, and partly because the instructor views students as resources from whom one learns. Students share information because communication skills comprise the course content.

In developmental mathematics, too, Project Intertwine creates an atypical classroom setting. Each student in the developmental mathematics class is placed at an appropriate skill level based on test results. In a conventional developmental classroom, individuals may sit alone and work quietly at a task, never knowing that the person across the aisle is struggling with the same task. In Project Intertwine classrooms, counselors are invited to participate and to encourage students to discuss mathematical and other academic concerns. Questions of academic survival, of assumptions related to self-image, of interests, abilities, and fears of mathematics are discussed. Very real problems of goal setting, of determining priorities, of managing time are not considered out of place. The message comes across that it is all right to be human and to feel human in mathematics class.

Without sounding as if the panacea for working with all developmental problems is at hand, it is quite encouraging to participate in the administrative "give and take" which Project Intertwine requires. One of the areas always under consideration is the balance of academic content and "related topics." In our attempt to minimize this discord, we promote frank communication in planning our coordinated approach. The bottom-line reality of Project Intertwine is that the counselor should constantly work to adapt to faculty and student needs. In no way should our cooperative effort be misconstrued as a counseling course. It is our feeling that sound academic content, supported by able student development personnel, will yield a valid and valuable course.

Three steps which helped us create a climate for collaboration at Manassas may benefit other administrators:

1. Set out a campus philosophy as a sort of intellectual skeleton to which the nerves and muscles of actual practices may be attached. At Manassas, for example, tangible barriers which could prevent counselors and instructional faculty from communicating were eliminated when counseling offices were re-designated for classroom space, and counselors joined faculty in a common office area.
2. Use some rudimentary analysis of costs and benefits associated with instructional and student development design. This analysis helps to determine costs and also helps administrators to understand that when new practices are added, some old practices must be discarded. If a counselor works for two hours in a classroom, that counselor cannot be available during the same two hours for other duties.
3. Pay close attention to the goals of programs but even more attention to the personal chemistry between persons who work together. Search for workable combinations of instructional faculty and counseling faculty so that trust can be built and maintained.

Finally, it is important to view any collaborative effort like Project Intertwine as a work in progress. The following chapters will show how the program continues to change at Manassas — the evolution of placement testing, how the counselor's role in the classroom has grown from that of visitor to regular participant, and how the counseling approach differs in English and mathematics classes.

Intertwine changes as new ideas come into play and old ideas are reworked and refitted into the picture. But one idea never gets discarded: If you set the stage for collaborative efforts and give recognition to the ensuing ideas, you will find richness of results.

Chapter II

Intertwine and Developmental Writing

Dr. Patrick Bizzaro, Associate Professor of English
Northern Virginia Community College, Manassas Campus

Choosing Terminology to Reflect Our Goals

The subject of this report has a variety of names; "basic," "remedial," "developmental," and "compensatory" are perhaps used most often in describing the kind of education provided academically high-risk students. The most immediate problem confronted by those who would like to say something about ways of working in this relatively new teaching/learning situation with this relatively new category of student is the problem of agreeing on terminology.

This is a much more essential task than it may appear. The usual procedure for discussing any pressing matter follows a pattern such as this: first, the matter is identified as a problem area; second, in the process of discussing the problem, individuals involved decide upon a language and vocabulary to ensure that everyone is discussing the same thing; and third, solutions to the problem are offered, tried, and either adopted wholly or partially or disregarded entirely.

This has not, however, been the procedure for dealing with the education of non-traditional students over the years, and confusion over terminology still exists. Do the usual terms — basic, remedial, developmental, compensatory — refer to the same course? Do they describe changes in the student? Do they describe processes used by the instructor? Do they describe anything in particular?

Mina Shaughnessy, the leader in identifying problems encountered by non-traditional students and their teachers, alludes to the problem of terminology in her contribution on "Basic Writing" in *10 Bibliographic Essays*.[1] She elaborates in *Errors & Expectations* when she suggests that the three most meaningful descriptions of writing courses for non-traditional students are basic writing, remedial writing, and developmental writing: "Despite such advances, the territory I am calling basic writing (and what others might call remedial or developmental writing) is still very much of a frontier."[2] Such confusion over terminology certainly makes for a frontier; but until the terminology is clarified, no one will be certain which continent it is on.

Some headway has been made, however, by K. Patricia Cross in *Accent on Learning*.[3] Cross begins her study by making distinctions between remedial and developmental education. According to Cross, "remedial" refers to the teaching of certain skills required in specific disciplines. "Developmental" refers to the development not only of skills, but of attitudes that will make the student more confident of his abilities to succeed. While Cross lays the groundwork for important semantic distinctions, she is writing generally about education. The work of more specifically differentiating in the area of writing remains to be done.

So it was that our first task at the Manassas Campus of Northern Virginia Community College was to decide on the goals of developmental English and then define our terms.

"Basic writing," an oft-used label for such courses, seems to have evolved as a response to the "back-to-basics" movement of the 60's. This label has come to serve as a large category, providing a base broad enough to support any and all teaching approaches, including what happens to and in the student. It is "basic" because it assumes that, no matter the technique used in the classroom, certain fundamentals — sentence structure, paragraphing and punctuation — will be taught. Shaughnessy has made at least two other observations of relevance here. For one, she points to the need for further work in four areas of basic writing, including "determining what goes on and what ought to go on in the composition classroom." This should push teachers at least to observe carefully what changes in writing skill and student attitude take place in response to the classroom experience and, at most, to document successes and failures for others to build upon. Second, with reference to "basic writing" students, Shaughnessy has noted that "the greatest barrier to our work with them is our ignorance of them."[4]

If we aspire to use terms in any meaningful way and to connect goals with terminology, then we should be alert to how we choose terms for discussing a problem. Most articles dealing with the teaching of non-traditional students use the phrase "basic writing" to label the course, primarily because Shaughnessy decided to use the phrase. "Basic writing," however, is far too general a term. And, despite its use by most writers, an occasional article will still be written referring to "remedial writing." Are we to assume they are the same course? And what do we do with the *Journal of Developmental and Remedial Education*?

We have tried to make finer distinctions than these at Manassas since we believe the terminology we use to identify a course should connect with what goes on in the classroom. While "basic writing" is a good catch-all, in the final analysis it does not describe what changes should be expected to take place in the student or what concerns might be addressed by the instructor. Now that educators are ready to admit that some of the early attempts at preparing students for college composition have placed more emphasis on preparation for college writing than preparation of students, we might take Shaughnessy to heart once more in distinguishing terms.

"Remedial" suggests an interesting metaphor for what goes on in the student. In remedial writing the teacher is, in terms of this metaphor, a doctor who prescribes specific doses of writing and rewriting, lecture, and individualized instruction to remedy some sort of illness. The apparent aim of remedial writing is to aid the student-patient by curing his illness, the inability to write edited American English. "Remedial" implies the presence of something in need of remedy, assuming there is something blatantly wrong with

[1] *10 Bibliographic Essays* (Texas Christian University, 1974), p. 47.

[2] *Errors and Expectations: A Guide for the Teacher of Basic Writing* (New York: Oxford University Press, 1977), p. 4.

[3] *Accent on Learning: Improving Instruction and Reshaping the Curriculum* (San Francisco: Jossey-Bass, Inc., 1976).

[4] "Some Needed Research on Writing," *College Composition and Communication* 28 (December 1977), p. 317.

not knowing how to write in edited American English. Presumably, the symptoms of this illness appear in what the student writes. By working with the student, the doctor can give a cure that assures each remedial writing graduate that he will be as healthy as anyone who enters college as a traditional student.

There is no problem with this as long as we remember that remedial does what it says it does: teaches the fundamental writing skills essential to success in college composition. Shaughnessy's *Errors & Expectations* is directed primarily toward the remedial writing teacher. In fact, the bulk of articles appearing in journals published through the National Council of Teachers of English about teaching non-traditional students how to manage sentences and paragraphs deals with remediation — the uses of sentence combining in basic writing, a comparison between the revision procedures of traditional and non-traditional students, and similar concerns.

But, to cite Shaughnessy again, "the greatest barrier . . . is our ignorance of them." By treating only the symptoms, remediation forgets the special needs of these students. Most fear school. Most dislike writing courses. Often they enter the writing classroom believing the English they use, the language which has served them all their lives, is incorrect, at least in the classroom. They have, as John Roueche has noted, considerable difficulty in adapting to and coping with the college environment. Many have problems at home that keep them away from class. Others simply attend school to receive paychecks. Many students at Manassas are veterans or dependents on the G.I. Bill, some are vocational rehabilitation students, and others are funded by federal programs, usually in the process of waiting for something else to happen in their lives. In addition to these are women returning to school after their children have grown. Filling the seats remaining are recent high school graduates who have taken a qualifying examination or have written an essay and been labeled "non-traditional."

This is a wide and varied group of students. They share an inability to write and, for that matter, to communicate at all in edited American English. Many have apprehensions about taking college courses and usually are more apprehensive about writing courses than about any of the other courses they take. These students generally feel bad about themselves and view their placement in a pre-college course as a failure or a sure signal that they are "stupid," a term they often use in describing themselves.

Self-concept is very low, and this is a fundamental problem in working with these students. William Purkey concludes the second chapter, "The Self and Academic Performance," of his *Self Concept and School Achievement* with the following observation: "Although the data do not provide clear-cut evidence about what comes first — a positive self-concept or scholastic success, a negative self-concept or scholastic failure — it does stress a strong reciprocal relationship and gives us reason to assume that enhancing the self-concept is a vital influence in improving academic performance."[3] Elizabeth Haynes concludes her survey of research on the teaching of writing with the following: "I believe very strongly that noticing and praising whatever a student does well improves writing more than any kind or amount of correction of what he does badly, and that it is especially important for the less able writers who need all the encouragement they can get."[4]

Because we at Manassas are concerned with student self-concept and because we try to develop the entire student, we call our course "developmental writing." The classroom is less like a hospital than like an arena for social interaction. Every attempt is made to encourage total development of the student by working with and rewarding what is already present. "Total" means a spectrum of things: remediation, coping with school, examining attitudes toward the teacher and the self, enhancing self-concept to enhance learning. It means approaching the teaching of writing humanistically, examining and building upon what is there rather than identifying and installing what is missing.

While "remediation" refers to what must go on in basic writing if the student is to grasp the basics of writing, "developmental" includes a concern for the student as an entire person and makes a commitment to maintaining an environment conducive to the growth of that person's self-awareness.

Evolution of a Concept: Intertwine's Beginnings

Effective programs start with evaluation, as John Roueche notes in "feeling good about yourself: what is good remedial education?"[5] When we began our developmental writing program at Manassas, we had not had adequate opportunity to evaluate student needs. But we did know this: improved self-concept is likely to aid in improved school achievement. Roueche continues:

> . . . The program must be designed to accommodate the diverse needs of students who enroll. It is predictable that these students will not only be weak in verbal and quantitative skills, but that they will also lack self-confidence in their ability to succeed. Such students often feel inadequate as human beings, suffer from feelings of rejection and powerlessness, and are convinced that they cannot succeed. Even more disconcerting is the fact that such students have learned to hate English, math, and other courses that reward verbal proficiency.[6]

Before entering the developmental writing classroom, we knew we wanted to deal with the predictable problems of student attitude and motivation. As a result, we were drawn

[3] *Self Concept and School Achievement* (New Jersey: Prentice-Hall, 1970), p. 32.

[4] "Using Research in Preparing to Teach Writing," *English Journal* (February 1978), p. 87.

[5] *Community College Frontiers*, 4 (Winter 1976), pp. 10-13.

[6] Ibid., p. 12.

to Human Potential Seminars as a model for organizing the course around our concern for self-concept. The Seminars were developed by Dr. James D. McHolland as a process through which persons are helped to become more self-determining, self-motivating, self-affirming, and empathetic. Rouche observes:

> . . . remedial students have developed "failure syndromes" because they have failed in most of their earlier educational endeavors. They doubt that they can succeed, and many are certain they will fail. It is important that any remedial program focus on student development as one major goal. Remedial students need to be in an environment where students can succeed. Indeed, they should be in a setting where failure is not possible. They need to be in an environment where self-concept development is as important as skills development or content mastery.[9]

Of several programs we surveyed, Human Potential seemed to offer the best approach to creating a failure-free environment.

McHolland's manual for leaders of Human Potential Seminars states at the outset goals similar to those we set for our developmental writing course:

> Human Potential Seminars are a structured small group experience founded on the assumption that something is *right* and *good* about each person. A second assumption is that it is possible for a healthy person to do almost anything his mental attitude will permit . . . . In contrast to traditional group therapy which starts with the proposition that something is wrong, it is assumed that healthy persons can most effectively actualize their own giftedness by working with what is *right* or can be developed. Positive feedback is held to be of more primary importance than negative feedback in self development, change and using one's potential.[10]

As our campus' first developmental writing instructor, and at the recommendation of my chairman, I became certified as a facilitator of Human Potential Seminars. While I did not facilitate any formal group experiences in the classroom at first, I did use my Human Potential background to create an environment in which students were encouraged to practice affective writing and focus on their strengths. I maintained an attitude of encouragement in the classroom. I stressed, for instance, that there was no such thing as failure in the developmental course since the lowest grade a student could receive was "R" or "Repeat" if the student simply turned in all assignments.

On papers submitted for my comments, I made it a point to identify strengths in the work before suggesting ways the paper might be improved (as opposed to pointing out weaknesses in the paper, since there is a difference in the attitude with which one approaches these two tasks). I made certain that students worked longer on fewer essays so that the essays submitted for evaluation were relatively free, in their final forms, of the more flagrant kinds of writing problems. And I announced two or three objectives for each paper so that the students knew exactly what I "was looking for."

In setting up the objectives of the course, we had followed Roueche's advice: "Remedial program planners should obtain from instructors in traditional curriculum areas the list of necessary skills and attributes required for students to succeed in their courses."[11] The teachers of traditional composition classes we surveyed agreed that all students entering freshman composition (English 111) should be able to:

1. stick to a single, limited topic
2. write a variety of kinds of sentences; know the terms "coordination" and "subordination" and the processes of sentence combining suggested by each
3. follow a recognizable pattern of organization
4. write a topic sentence with clear, concise statements of intent in those paragraphs needing one
5. support the topic sentence with clear, logical examples
6. write a thesis statement
7. support the thesis statement with well-developed examples
8. avoid major grammatical and spelling errors

Our developmental writing course was then organized in terms of the three major skill areas — writing sentences, writing paragraphs, and writing whole essays. Although we devoted three hours of class time to lecture, two additional hours of lab time were scheduled each week when students could work at their own pace.

Early Problems

Several problems resulted in this first stage. For one, most of the faculty and staff failed to concern themselves with the self-concepts of developmental students, since most of the faculty and staff were not attuned to the aims of the program. As McHolland states, "We cannot talk of affirming students and actualizing their human potential unless we are also willing to take specific steps toward affirming all other persons in the educational setting — the chief administrators, deans, faculty, counselors, secretaries, maintenance engineers."[12] Our English Qualifying Examination, administered on the first day of classes to all those enrolled in English 111, was actually given in the classroom. Those students who scored poorly were physically removed from the room, literally separated from the group, and identified as developmental students. The instructor who administered the examination then told the students to "Go downstairs to see Dr. Bizarro." No doubt the students had second thoughts about making such a trek — comparable, in their minds, to the classic "descent into hell."

I then had the problem of explaining to these students why they were separated from the others and had to spend their time with me. Many were shocked and totally humiliated. Many wondered if college was for them. Some showed their anger. Practically all of them, however, stayed in the class.

A second problem related to the books used and the traditional approach espoused by other campuses of Northern Virginia Community College, whose writing course ours

[9]Ibid., pp. 12-13.

[10]*Human Potential Seminars: Leader's Manual* (Evanston: Kendall College Press, 1972), p. 1.

[11]Roueche, "feeling good about yourself," p. 13.

[12]McHolland, *Human Potential Seminars*, p. 2.

was to model. Those same books were to be used at the Manassas Campus, at least during the first year, though I objected and eventually changed them. The books intend to help students improve their writing by teaching them grammar. Without question, grammar is a humane field of study, but a student need know no more than six terms to talk intelligently about a sentence. As a great proliferation of research has shown, grammar does not improve a student's writing, it involves an entirely different cognitive skill. Many of our students who could score 100% on the grammar tests still could not write a sentence and, as a result, had further misgivings about taking a developmental writing course.

The third problem came from using the McHolland Human Potential Seminar materials in ways for which they were not designed. In fact, McHolland warns, "Homogeneous groupings of underachievers is strongly discouraged."[13] Still, I intended to create an anxiety-free environment and used the exercises to encourage affective writing. While Human Potential rightly claims not to involve clinical matters, application in this particular instance and manner proved otherwise.

Students were encouraged in class to take ideas from the Human Potential exercises and develop them fully in an essay. Although some students shied away from the writing by not becoming fully involved in an exploration of past experience, others submerged deeply, some nearly drowning. Many requested conferences with me to discuss their problems at greater length, often asking for instructions on how to remedy their personal problems. After conferring with my division chairman, I realized that I needed a counselor in the classroom who could run a group experience and be available to confer with students. This is the point at which Intertwine, with its special uses of English teacher and counselor together in the classroom, began.

Intertwine is Launched

For the next academic year, a counselor was hired to work, in part, with the developmental students. His past experience showed an ability to run group sessions as well as an ability to enter the writing classroom. In the Manassas program he was to attend one hour of the five-hour developmental course each week. During that time he and the instructor would co-facilitate a formal group experience with the following objectives as outlined by the initial counselor, Dr. John Wheeler, in his article, "The Manassas Connection: A Teaming Up in Developmental Studies:"

1. to reinforce the academic success the students are achieving in the class;
2. to enhance peer relationships as a means of changing the students' perceptions of themselves as isolates or as the only ones with nontraditional backgrounds;
3. to allow individuals the opportunity to examine their values;
4. to develop goal-setting techniques which offer the students the opportunity to display some power over their future;
5. to emphasize individual strengths as perceived by self and others.[14]

In a talk I presented at the Southeastern Conference on Teaching English in the Two-Year College (SCETC), the major point of the program was summarized:

> The group experience is founded on the principle that there is something good and worthwhile about each of us, teacher, counselor, and student alike. The sessions are geared toward increasing the participants' self-awareness and providing an arena for growth, change, and self-understanding . . . . What is stressed is the positive side of things, the strengths, the abilities, the potential for increasing one's capability to grow as a human being.[15]

The Human Potential package again was used in the hope that students would begin feeling good about themselves and, as a result, be more motivated in the classroom. As Shaughnessy says, the developmental teacher should be involved in "creating situations in the classroom that encourage students to talk openly about what they don't understand."[16]

The exercises used in class were based on, but did not fully incorporate, the Human Potential approach. Some of the McHolland exercises were not suited to the class time allotted for the group experience. Some of the exercises which could be done in the class could not be adequately processed. The exercises used, however, were intended to satisfy several basic goals: the development of a group identity among the students; a clarification of values leading toward an understanding of the role of college and further education in each student's life; the setting of short-term and long-range goals, focusing primarily on goals of an educational, social, or personal sort; and, finally, an examination of personal strengths.

This second stage in the evolution of our program was a giant step forward since it combined a teacher and a counselor in the developmental writing classroom for the first time. But problems still needed to be ironed out. For one thing, the formal atmosphere of the group experience made some of the students uneasy, though they were told from the start that they need not do any exercise they felt uncomfortable with. Nonetheless, a small percentage of the students wanted to know what this group experience had to do with the teaching of writing. Shouldn't we, they would say, be doing something else during this hour?

Understandably for these students, the exercises seemed to have little to do with a course in writing. While the exercises were apparently successful in making the classroom a place where students talked openly about what they did not

[13] Ibid., p. 3.

[14] *Vaspa Interchange*, 5 (Fall 1977), p. 14.

[15] Unpublished paper, Southeastern Conference on Teaching English in the Two-Year College, Williamsburg, April 1977. The paper is available in its entirety through ERIC Clearinghouse.

[16] Shaughnessy, *10 Bibliographic Essays*, p. 43.

understand, as Shaughnessy urges, one of the things they did not understand was the reason for the group experience. We decided that the counselor's presence at only the group experience prevented him from becoming an actual part of the group. In addition, too little time was spent at first "processing" the exercise so that the students knew its purpose. Finally, no method had been created to show students that the group exercises actually had something to do with what they were writing in the classroom.

Eventually we decided that the English Qualifying Examination, which had initially created difficulty for students who had already enrolled in English 111 before taking the exam, would be administered in the Learning Resource Center before a student registered for any courses. This enabled a student to maintain his dignity and avoid the embarrassment of being separated from his original class. We also decided that the counselor should enter the classroom for more than just the group exercises. He began coming into the classroom more often to participate in the same exercises the students were expected to do. Often he would write along with the students and share his writings with them both in small groups and in the ungrouped sessions. The counselor and I agreed that the final ten minutes of each group experience would be spent processing the material. And I made certain that each week's writing assignments, whether those assignments were intended for submission or for journal entry, were in some way derived from the group experience so that the experience could be viewed by the most skeptical students as a pre-writing activity.

In addition to these changes, the counselor and I assessed the success of individual exercises used in the program. We decided that the exercises on goal setting, though valuable for some students and ostensibly essential to working with these students, were not especially interesting to the majority of students and, therefore, not satisfying to us. Some of the McHolland exercises suggested activities that might be used at times in the course other than during the group experience. We discovered that not every group responded to the same material and began to search for other exercises from which each term's program might be developed. The next chapter focuses on those exercises used during Summer 1980 and how they reinforced the subject material we used.

The involvement of the counselor and instructor was enthusiastic for obvious reasons. However, we were perhaps too willing to share our feelings with the group, reinforcing in some students the notion that this was a typical classroom experience where, albeit implicitly, they were being told which values are best and which ones a person would be in error to hold. At first, we co-facilitators felt that a show of interest would be an important and substantial contribution to the group. We came to realize, however, that we must be members of the group, not leaders of it. Now we bring in the exercises, explain them, and then become members of the group.

Freeing Students to Learn & Teachers to Teach: An Orientation to Developmental Writing[17]

When developmental studies personnel assess the difficulties confronted in their courses, most tend to overlook the fact that their own lack of preparation for working with non-traditional students may be the most trying problem of all. Leland R. Cooper observes in "The Preparation of Teachers for Developmental Studies Programs" that "The ability to work effectively [in development studies courses] is a composite of skills a person acquires along the way. Most of these emerge from awareness of the other person's situation and sensitivity to that person's needs."[18] The Manassas program attempts to confront this problem directly by bringing counseling techniques into the classroom. After all, as Roueche and Roueche point out in *Developmental Education: A Primer for Program Development and Evaluation*, "In effect, counselors now are found teaching developmental courses, and developmental instructors are found moving toward counseling roles."[19] It is important to this discussion to analyze why this is necessary.

For one thing, most college and community college teachers of composition were themselves successful in college writing courses. In fact, most were so successful that they were confident enough to go on to other English courses. Teachers can relate to the freshman composition student because they were once freshmen themselves. But most composition teachers do not understand the student who has the tag "remedial," or "developmental," or "basic," having never been a member of that group.

For another thing, very few writing programs are concerned with training teachers specifically for the teaching of developmental writing. While there are several programs which go so far as to train teachers to teach in junior colleges or to specialize in the teaching of composition, their thrust is in every case remedial. And even in these instances, course work is scattered to include several areas of the writing process.

Finally, developmental students present the teacher with problems that often have nothing to do with writing. Many of these students already have had a writing course and found it very demoralizing. They approach writing with anger and anguish. The teacher is their enemy. They are angry at the counselor because he told them that before they can graduate with a certificate in automobile maintenance they must pass freshman composition I. They are angry at the freshman composition teacher who, on the basis of a

[17] A slightly different version of this material appears in *Teaching English in the Two-Year College* (East Carolina University, Fall 1980).

[18] *Community College Review* (Winter 1980), p. 37.

[19] John E. Roueche and Suzanne D. Roueche, *Developmental Education: A Primer for Program Development and Evaluation* (Atlanta: Southern Regional Education Board, 1977).

qualifying examination, told them they should be in developmental writing. And, even before they enter developmental writing, they are mad at whomever they will find there because they do not like to write.

We should keep in mind, of course, that there are many students each term who wholeheartedly want to learn the fundamentals of writing. "It will help me with my job" is their usual reason for being there. These students often carry the class discussions, remember from day to day what the assignments actually are and, on some occasions, want to do extra work. Yet these students often have the greatest apprehensions about developmental writing; having taken the biggest risks, they have the most to lose — not in terms of tuition or grades, but in terms of self-respect. At least the others can argue that they did not think the course was very important anyway.

In a developmental writing course it is useful to create from the beginning an environment in which students feel free to express their shared anxieties about the course. While the instructor orients his students to developmental writing, he can orient himself to his students. And though the approach that follows seems non-traditional in its aims, we should remember, as Roueche and Pitman point out, ". . . non-traditional practices are needed to fit the needs of non-traditional students."[20] Such an orientation should attempt to achieve five goals. First, the orientation should make the fundamental point that writing differs from speaking. Second, the students should be given a sense of group. Third, they should be encouraged to express their feelings about taking a developmental course. Fourth, edited American English should be revealed as a dialect of the language. And, fifth, the students should be shown the arbitrariness of "right" and "wrong" in communication.

How Writing Differs from Speaking

If the idea behind a developmental writing course is to take students from where they are to where they should be before entering English 111, then we should find that point at which all students can function — speaking — and begin there. In *Errors and Expectations*, Shaughnessy spends an entire chapter defending the notion that many of the fundamental problems in basic writing are a carryover from certain speaking habits that interfere with proper punctuation and sentence closure.

Shaughnessy writes the following:

> For the Basic Writing . . . student, academic writing is a trap, not a way of saying something to someone. The spoken language, looping back and forth between speakers, offering chances for groping and backing up and even hiding, leaving room for the language of hands and faces, of pitches and pauses, is generous and inviting. Next to this rich orchestration, writing is but a line that moves haltingly across the page, exposing as it goes all that the writer does not know, then passing into the hands of a stranger who reads it with a lawyer's eyes, searching for flaws.[21]

The starting point in the orientation is the admission that the ability to write is usually mysterious to most beginning writers while the equally mysterious ability to speak is not. The "rich orchestration" of speaking, the flailing hands and widening eyes, gives students who might not otherwise communicate an idea through language alone ample help in getting the point across. If the words and gestures themselves do not carry the meaning, a listener has the opportunity to ask questions, offer other words, and overcome whatever barriers the speaker might pose.

This is not the case with the writing of students who need a developmental course. While they can speak to each other clearly, concisely and even convincingly if given the opportunity and possessing the inclination, writing involves for them what Shaughnessy calls "error": "For him [the BW student], error is more than a mishap; it is a barrier that keeps him not only from writing something in formal English but from having something to write."[22] So an understanding of what the student will be asked to do should come, logically, at the start of the term.

To achieve this end at the Manassas Campus, the following exercises are used:

1. *We will take about 10 minutes to go to the cafeteria. Watch there how other people talk with their bodies. Record in the space below what you see. How do gestures and movements aid in speaking?*
2. *Talk to a classmate during class without using your hands or arms. Try not to make facial expressions. When you are done talking to your classmate, have your classmate talk to you in a similar manner.*

   In the space below, record your feelings (1) about communicating this way and (2) about being spoken to in this way.
3. *Notice how freely and easily people express themselves in conversation. Why do you think most people cannot express themselves so freely when they have to write? Why is it that for some people writing is like speaking to someone without making gestures?*

These exercises permit the student to make the transition from the mysteries of speaking to the mysteries of writing. They become aware that there is a difference, that writing is not speech put to paper. The instructor can use this opportunity to point out that speakers usually stop when a unit of thought comes to an end, not when a unit of grammar — the sentence — has ended. As Shaughnessy writes, "For many beginning writers, the need to mark off sentences inhibits the progress of their thoughts. In speech, they can produce sentences as easily and unconsciously as they can walk; in writing, they must stop to deliberate over what is and what is not a sentence."[23]

[20] *A Modest Proposal: Students Can Learn* (San Francisco: Jossey-Bass, 1972), p. 66.

[21] Shaughnessy, *Errors and Expectations*, p. 7.

[22] Ibid., p. 11.

[23] Ibid., p. 30.

At the same time, the students have shared an experience unusual in the classroom. They have begun to feel a sense of group, a bond that is, in fact, non-traditional but essential in making the developmental writing classroom a place where students want to be. They recognize what most writers, including Shaughnessy, Gary Sloan, and Peter Elbow, see as fundamental to their difficulties with writing: the interference of habits of speech.

A Sense of Group

Once students are identified as developmental, they often confront several different but related problems. The major problem is the sense of isolation which presents itself in various situations and with different groups.

The most immediate sense of isolation is the isolation from peers. We noticed from the start at Manassas that developmental students responded first, and most strongly, to their separation from other students. Often students sign up for classes with friends from high school or nearby to share rides to the community college. When their schedules must be changed, some of these relationships are affected. Often developmental students accept this separation as an indication of their differences not only in class schedules, but in intelligence, social standing, and academic potential. They are isolates because of their particular needs as incoming students.

This sense of isolation is followed quickly by and, in some cases, is the product of dissatisfaction expressed by their parents. Since this is a new area of education for most academicians, it is not surprising to find that most of the developmental students' parents are surprised to know such a program exists. Some students report that their parents are outraged at having to pay for courses which do not count toward a college degree. One angry parent accused the college of using this course as a way of making more money, the type of parental response that reinforces students' isolation. Another type of parental response is one that makes students feel even worse. Students report that their parents make denigrating comments about "bonehead English." Certainly the type of isolation these students experience could be better controlled if their parents were apprised of what actually takes place in a developmental course.

A third source of isolation is, of course, initiated by the students themselves. The feelings of frustration and dissatisfaction are well known and already discussed here. They are important to this discussion since they influence what, as Shaughnessy says, "ought to go on in a developmental classroom." These students need to replace their sense of isolation — the feeling that each alone suffers the malady of developmental education — with a sense of identity. They must be encouraged to speak out their fears, their anger, their frustration, even their dislike for what they perceive is happening to them. It's interesting to ask them how they respond to the idea that people judge them, using what they have written as a basis. Students usually have a great deal to say about things former writing instructors have said to them, and often what they remember does not reflect favorably on writing teachers. The exercises we use at the Manassas Campus are these:

4. *Consider the impact of other people's judgments about your writing. Do these judgments make you use the telephone instead of writing a letter? Are you angered to think that someone will make a judgment about you using what you have written as a basis? Write your response in the space below.*
5. *What are your general impressions of English teachers? Of students who succeed in writing courses? Write down your ideas here.*

I had some doubts about this portion of the exercises for orientation when I first started using them. Would students speak honestly to an English teacher about English teachers, or would they give the teacher, as they have learned, what the English teacher wants to hear, at least as the students perceive it? I was surprised to see developmental writing students speak out with some force and vigor on these topics. They have not enjoyed writing classes, do not enjoy writing, do not place writing teachers among their favorite types of people.

What we tend to forget about these students is that they are different in some very interesting and enlightening ways. Whereas traditional students usually will not respond honestly to these kinds of questions, since they know how to give teacher what teacher wants, developmental students have little or no fear of the grade and the person who hauls around the gradebook, as Jerry Farber has noted, like a pistol. Rather, they are pleased to have been given the opportunity to speak on this matter. When they find that their experiences are shared experiences, they begin to sense that they are not alone, that many others share this same feeling about writing, writing teachers, and academic success.

Edited American English as a Dialect

Most developmental students have the impression that what they are expected to learn has some deep, secret significance, some purpose that has been hidden from them for as long as they have attended school. If an orientation to developmental writing has any purpose whatsoever, it is to give away the secret of why students are there and what they are being asked to learn.

Since the orientation begins by examining the differences between speaking and writing, it follows that students should be given the opportunity to discover that speaking is appropriate most of the time but that occasionally even the most articulate speaker must write. It is important to point out that, in the English language, there are a wide variety of ways to express the same idea. One variable directing the way a person chooses to express a given thought is dialect.

Dialect may be defined for the students as "An identifiable way of speaking characteristic of some geographical area, social or economic class."[24] It seems necessary to

[24]Joseph M. Williams, *The New English: Structure, Form, and Style* (New York: The Free Press, 1970), p. xv.

discuss dialect if the orientation is to familiarize students with the environment in which they will work. Once they understand that dialect is influenced by where a person lives, what his level of income is, how much education he has, what his peer group is, students begin to understand what teachers have been trying to teach them over the past twelve or more years.

Williams uses the following examples to characterize standard and non-standard dialects of the English language:

> I haven't got the money.
> No one can tell me what to do.

These are examples of the standard dialect. What follows are characteristic of at least one non-standard dialect:

> I ain't got duh money.
> Can't nobody tell me what to do.

Williams suggests that both dialects are equally complex and equally "logical." They are complex insofar as they both partake in the mystery of communicating a thought. They are logical insofar as both follow patterns and can be predicted on the basis of these established patterns. Williams is careful — as teachers of developmental writing should be — not to discuss these examples in terms of "right" and "wrong." Rather, Williams makes a point fundamental to any approach to the teaching of developmental writing.

> We prefer one over another simply because the people who speak it control the money and power or the social prestige in a community. Since money and power and social prestige are generally desirable goals, most of us usually try to behave like the people who control them. And one important part of our behavior is our speech.[25]

That non-traditional dialects of the language interfere with success in writing courses should be evident to any developmental writing teacher. The evidence is in what the students write. Shaughnessy elaborates on this fully throughout *Errors & Expectations*.

When students discover that they are being asked to learn the idiosyncracies of a specific dialect of the language, it is as if they have removed large weights from their shoes and are able to step ahead, into a place where they feel free to learn. This is a basic truth about what they are being asked to do, but a truth they hear as though they have never heard it before. And maybe they haven't.

This discovery has some lasting results. For one, students learn that there is no right or wrong in communicating. There is only the matter of appropriate or inappropriate. For instance, it is appropriate to use the phrase "Can't nobody tell me what to do" with friends who speak the same dialect of the language. It is inappropriate to use double negatives in the classroom environment and on papers written to be turned in to the instructor. Williams explains it this way, with specific reference to double negatives:

> They are considered "bad" because many people who use double negatives did not go through the same socializing process as the people who avoid them. The double negative only signals that a speaker may not share the same values and expected norms of behavior that an educated person may want in the people he associates with.[26]

In short, the use of the standard dialect is appropriate in school for reasons that are as much social as academic.

In developmental classes at Manassas, we begin the term by agreeing to speak the standard dialect as often as possible. Students are asked to commit themselves to learning that dialect, understanding from the start that any other dialect they know and use should still be used whenever appropriate. The orientation exercises used are the following:

> 6. *How would you respond to this situation? You are the teacher. The meanest looking man you have ever seen has just decided to enter your classroom on the first day of class. You watch him duck beneath the door, step inside your classroom, and fill the front row. You ask him to write something for you and you discover he doesn't write edited American English. He does not punctuate, write sentences, or write paragraphs.*
>
> *He approaches you later in the cafeteria to ask how you liked his essay. You think only about the three pencils he squashed while he wrote. What would you say to him? In the space below explain how you would discuss his writing problems.*

This exercise helps orient the instructor to the students since it involves a role reversal. In effect, it asks "How would you go about teaching a student who does not have the necessary writing skills for traditional composition courses?" The exercise specifies a student who seems physically intimidating, but it could be any student who has failed to master the fundamental skills of writing.

Students dealing with this situation usually fail at first to see the connection between the situation and what has already been said about dialect. But they always see a need to handle the student carefully. Some offer the suggestion that the teacher speak to the student in the student's own "language." They expect that the student will respond positively if he is treated with respect, rather than with impatience and condescension. In every case, they speak of this student sympathetically and, for some reason, do not see this student in any way like themselves.

The teacher should be able at least to get a feeling for the way a given group of people would like to be taught. Almost without fail, students who ordinarily remain quiet during the other exercises speak out with a response to this one. What these students eventually can be led to see is not surprising, given the preceding exercises. They see that it is appropriate to speak the standard dialect of the language in the college classroom. This they eventually accept as a part of the new environment they are entering. But they also see that it is appropriate to write in the standard dialect, using whatever conventions the standard dialect calls for. Some of these conventions are sentences, paragraphs, and punctuation —

[25]Ibid., p. 7.

[26]Ibid.

all of the things these students have managed to avoid learning throughout their educational careers. The course becomes more than one in proper word choice. It is one that hopes to provide the students with the skills they need to move from one social group to another and back again. But the students must make a commitment to learn this standard dialect, to wrestle with it until they are able to pin it down. If they cannot make this commitment, no amount of instruction can help them. This needs to be pointed out since the course can prove of significant value in developing these people as students and, later, as professionals.

Some Thoughts on Grammar and Self-Concept

In a survey of developmental writing classes, students showed a general dislike for writing. In the same survey, students indicated that much of their anxiety about writing courses comes from the experience of having been taught traditional grammar. While no large body of research has been compiled to prove that there is a negative relationship between the teaching of grammar in a writing course and student perceptions of themselves as good or poor learners, a case could probably be made that would argue that more than writing itself, the coupling of the teaching of writing with the teaching of grammar has made students feel less capable of succeeding in traditional writing courses.

At Manassas, we attempt to let students know that we are capable of discussing not grammar, but grammars. Once the language is used repeatedly in a particular way, linguists are able to generate rules for that language. Since grammar is a model of the language, it is possible to teach any of a number of different grammars. The standard uses of the language, however, are the uses taught and the grammar used, for the reasons outlined above. But at no point is an entire grammar taught. Rather, students are provided a minimum number of grammatical terms — only enough to help them discuss the make-up of a sentence — and then asked to use patterns predicated on the predictable way sentences occur in standard English as a way of editing their writing.

Early in the term, the focus is on what standard or edited English is. These are a few more of the exercises used in class.

7. *Under what circumstances would the following sentences be appropriate?*
   a. *Can't nobody tell me what to do.*
   b. *Get outa my face, man.*
   c. *When the parties arrived, the confab began.*
   d. *The man busted him for fencing.*
   e. *Law enforcement officials placed him in custody for the merchandising of cannabis.*
   f. *He just ain't gonna do it.*
   g. *My mother, she just slap him in the face.*
   h. *There can be no question that the controversy has been resolved in our favor.*

8. *Assume these next sentences are all spoken when you are before a fairly large audience of college freshman and you are expected to talk like an educated speaker. Some of these sentences are inappropriate because they are completely ungrammatical and would not be spoken in any dialect of the English language, under any circumstances. Some of these are inappropriate because they are street talk. The others are appropriate.*
   a. *He ain't as smooth as he think.*
   b. *Them guys is out of their mind.*
   c. *The bicycle up the and down once I watched.*
   d. *His sudden disappearance puzzled me.*
   e. *President was elected a house and a waffle iron.*
   f. *Frank is shorter than Tom was riding a wagon.*
   g. *That's the bee's knees.*
   h. *My teacher, she just punch him in the eye.*
   i. *He ain't got no lady to date.*
   j. *The school was constructed in the late fifties.*
   k. *He was watched by the lady next door.*
   l. *All the athletes in school cracked their knuckles at the same time in honor of their coach.*
   m. *Several the car told slim.*
   n. *You're really kind of screwy.*
   o. *We jammed till three in the morning.*
   p. *His disappearance of the wallet scares me.*
   q. *She ain't such a looker herself.*

Counselor in the Classroom: Improving Self-Concept & Composition Skills

The fear of making errors in writing creates barriers not only to writing, but also to having something to write about.[27] One of the chief functions of the counselor assigned to developmental writing is to help the students understand and deal with these fears.

What Shaughnessy terms "fear" manifests itself in several ways in the course. On the one hand, some students fear entering the college environment. Other students are concerned about the kinds of interactions they will have with teachers, administrators, and especially peers. Still others are concerned, perhaps less consciously than of other fears, with the increased freedom and the self-reliance dictated by the environment. Since many students work full- or part-time jobs while attending school, they are concerned about finding time to study and prepare for class.

Another kind of fear many students display is the fear of taking a writing course. These are the students who have proved unsuccessful as students generally and as writers specifically. Their self-concepts are low, and the risk in taking a writing course involves the possibility of further failure in a situation in which they have failed in the past. These are the kinds of students to whom Shaughnessy, no doubt, alludes in her study of Basic Writing students.

[27] Shaughnessy's premise in *Errors and Expectations.*

Similar to these students are those returning to school after having been away from the academic environment for anywhere from one to 20 years. Many of them possess adequate writing skills to enter directly into the college freshman writing course. They still opt for the developmental course because they need further encouragement or more time to decide what they want to do now that they have entered school. Often these needs are cloaked by the stock expression, "refresher course," when they are asked what kind of writing course they are taking.

The final type of fear often evident in developmental writing courses is the kind of fear which Shaughnessy suggests prevents students from writing at all. One way this may be seen in the classroom is when students are asked to read what they have written. While we always encourage students to read, they are told they need not if they decide otherwise. What happens most often is that a student begins to read off the page and then looks up to speak what he feels. This usually results both from an insecurity with the written word and a lack of faith in the ideas presented.

The counselor's task is threefold. First, he attempts to allay whatever fears the students have about making errors. The instructor helps this along in the orientation by showing that there is no right or wrong in language, only appropriate and inappropriate. The counseling segment presents materials that force the students to become concerned with their value systems. With values, too, there is no right or wrong.

A second counseling task is providing exercises which help students find something to write about. Because the exercises focus on personal experience, the students tend to write with urgency. The instructor talks early in the term about the relation of writer to audience. The students are asked to write to various audiences, including instructor and peers. More importantly, they are instructed to approach their writing as though they are the teachers and the audience, the students. This includes the audience of teacher and counselor. After all, only the student is the authority about the facts of his own life.

The third of the counselor's tasks is to help students discover their strengths, goals and values. In this way, he contributes to each student's improved self-concept and removes the student's sense of isolation. Once this is done, other benefits seem to follow. The fundamental premise of the counselor-instructor team, the basic belief of Intertwine, is that improved self-concept has a profound and lasting effect on school achievement.[28]

What follows in this chapter is, in fact, the Intertwine — the combination of affective and cognitive learning used at Manassas to build more confident students, more competent writers. The counseling segment of the course is organized to include five broad areas: Group Formation, Group Consensus, Goal Setting, Values Clarification, and Strength Identification. The exercises are selected so that they logically follow one another, yet reinforce what is taking place in the lecture portion of the course.

[28]See Purkey, *Self Concept and School Achievement*, 1970.

Sense of Group

The counseling segment of the developmental writing class uses roughly one hour each week of the five-hour course. The counselor operates under the principle that the course is first and foremost a writing course, and that it is essential to course integrity that the affective exercises fit in with the instructor's aims. It is important, for instance, that the instructor co-facilitate the group session and that the counselor relate his exercises to topics discussed in the writing portion of the course. It is also essential that the counselor attend class for more than the one hour of group exercise.

This final point needs some elaboration. The orientation section of the course outlined in the previous Sub-Chapter not only aims to explain what students are being asked to do, but also to establish a sense of group. During the orientation, the counselor is on hand to participate in the exercises and share with the students his feelings about writing. The first group experience involves games intended to help the students learn each other's names. If the counselor hopes to create a feeling of group among members of the class, he must be a part of the group, at least as much a part as the full-time instructor.

During the first session, the counselor and instructor involve students in the fairly common early-in-the-course exercise called the Name Game. The counselor selects a student usually sitting in the first seat of the circle to the counselor's left or right and instructs the student to state his name and one word the others might associate with the student. The second gives the first's name and word, and then gives his name and a word. The third gives the first's, second's, and then adds his name and word. This continues around the room until it returns to the counselor who names each student; the instructor does the same from wherever he is in the circle.

The Name Game is followed by an exercise in which students are paired off. They are instructed to take two minutes each to gather information about their partners so that they may introduce each other to the class. The result of this is that the students discover similarities in their backgrounds, goals, and reasons for being in college. In addition, they find out which academic program others are in. Often relationships develop from this, extending beyond the confines of the course.

When combined with the ongoing orientation, these exercises serve several related functions. For one, the initial impression students have is that the developmental class is unlike other classes. It is, to use Roueche's phrase, the kind of non-traditional class non-traditional students need. The fear of entering the college environment is reduced since the classroom is not threatening. It is, rather, a place where students want to be, a place good for students because it is anxiety-free and encouraging.

As a result, students know each other from the start and begin to understand the kinds of interactions they will be asked to make with peers, instructor, and counselor. The problem of environment solved, students come to see that they are not isolated, and relationships of a social sort begin to take form.

The first session's group exercises are built upon in the remaining four hours of class. The first directed journal writing is on the following topic: "Relate one experience that resulted from someone's confusion over or response to your name." This writing is invariably interesting and energetic.

Group Consensus

Once a sense of group identity is established, it is useful to continue working in groups. Since many of the exercises in the lecture portion of the course will depend upon each student's ability and willingness to work in groups, it is important to work at group consensus early in the term.

Group consensus is the ability of four or five students to work at a problem together and reach a decision concerning the problem that each group member can agree with. Ordinarily, the second and third week's counseling segment is dedicated to learning how to work in groups and to helping each student understand his role in the dynamics of group.

It is important that these exercises be interesting to the students. Since motivation is a crucial problem with developmental students, the counselor and instructor must be certain that they do not lose the momentum they have built during the first week. The content is less important to the co-facilitators than the process; yet the process means nothing to the students if they are bored.

At the same time that the group consensus exercises are being used during the counseling segment of the course, students are being encouraged to free-write in class about a single topic that has been adequately limited. During the second week, students work intermittently in groups to make certain that these two goals of finding and limiting a topic have been met. The instructor writes with the students and discusses certain of the conventions of college writing, building on what has been said in the orientation. One of these conventions is the need to use detail in writing, both to have something to write about and to interest the reader. If a writer is to use detail, he must learn not only to stay on a single topic, but to limit the subject as well.

One premise of the lecture portion of the course is that writing is itself a process of discovery.[29] A writer seldom knows what he wants to write about until he has written it.[30] As a result, students in the developmental writing course keep a daily journal in which they practice both freewriting and directed freewriting. Directions for freewriting might be like this:

> *I want you to write for ten minutes without stopping, on any subject that comes to mind. Don't stop. If you can't think of anything to write, just write "I can't think of anything to write. I can't think of anything to write." Pretty soon you will. Don't worry about sentence construction, spelling or punctuation. Just keep writing.*

A directed freewriting asks the students to write without stopping; however, students are directed to write on a specific topic.

During the first week, students are instructed to go back to what they have written and underline ideas that interest them. They share these ideas in small groups and then write again, sticking to a limited topic. After this second writing, students return to their groups to see if enough detail is included in these second drafts, if the writer has stayed with a single topic, and if that topic is adequately limited.

The use of groups is especially crucial in developmental writing. Students tend to feel more secure and confident about what they have written if they are helped each step along the way. They also begin to see how their sense of belonging to a group pays the ultimate dividend, an improved deadline draft (rather than final draft) of an essay. For these reasons, the counseling exercises early in the term involve group formation and analysis.

During the third week of the term, the notion of thesis statement is introduced. A thesis statement is defined as "A clearly stated idea that [the student uses] to control the rest of [his] essay."[31] The students again take their essays to their groups and read them to each other, asking if the group members can pick out the thesis statement. If they cannot, they help the student formulate a good one.

With these four writing objectives in mind — limiting the topic, sticking to it, using detail, writing a thesis statement — the counselor proceeds with the following exercises, used during the 1980 Summer Quarter.

---

[29] James Britton, "The Composing Processes" in Charles Cooper and Lee Odell, *Research on Composing* (National Council of Teachers of English, 1978).

[30] See Peter Elbow, *Writing Without Teachers* (New York: Oxford University Press, 1973).

[31] Judith Schor and Sandra Fishman, *The Random House Guide to Writing* (New York: Random House, 1979).

NASA EXERCISE[32]
INDIVIDUAL WORKSHEET

INSTRUCTIONS: You are a member of a space crew originally scheduled to rendezvous with a mother ship on the lighted surface of the moon. Due to mechanical difficulties, however, your ship was forced to land at a spot some 200 miles from the rendezvous point. During landing, much of the equipment aboard was damaged, and, since survival depends on reaching the mother ship, the most critical items available must be chosen for the 200-mile trip. Below are listed the 15 items left intact and undamaged after landing. Your task is to rank order them in terms of their importance to your crew in allowing them to reach the rendezvous point. Place the number 1 by the most important item, the number 2 by the second most important, and so on, through number 15, the least important. You have 10 minutes to complete this phase of the exercise.

_____ *Box of matches*

_____ *Food concentrate*

_____ *50 feet of nylon rope*

_____ *Parachute silk*

_____ *Portable heating unit*

_____ *Two .45 calibre pistols*

_____ *One case dehydrated Pet milk*

_____ *Two 100-lb. tanks of oxygen*

_____ *Stellar map (of the moon's constellation)*

_____ *Life raft*

_____ *Magnetic compass*

_____ *5 gallons of water*

_____ *Signal flares*

_____ *First Aid Kit containing injection needles*

_____ *Solar-powered FM receiver-transmitter*

[32]This exercise was developed by the National Aeronautics and Space Administration and adapted from D. W. Johnson and F. P. Johnson, *Joining Together: Group Theory and Group Skills* (New York: Prentice-Hall, 1975).

NASA EXERCISE
GROUP WORKSHEET

INSTRUCTIONS: This is an exercise in group decision-making. Your group is to employ the method of ***Group Consensus*** *in reaching its decision. This means that the prediction for each of the 15 survival items* ***must*** *be agreed upon by each group member before it becomes a part of the group decision. Consensus is difficult to reach. Therefore, not every ranking will meet with everyone's complete* ***approval.*** *Try, as a group, to make each ranking one with which* ***all*** *group members can at least partially agree. Here are some guides to use in reaching consensus:*

1. *Avoid* ***arguing*** *for your own individual judgments. Approach the task on the basis of logic.*
2. *Avoid changing your mind* ***only*** *in order to reach agreement and avoid conflict. Support only solutions with which you are able to agree somewhat, at least.*
3. *Avoid "conflict-reducing" techniques such as majority vote, averaging, or trading in reaching your decision.*
4. *View differences of opinion as helpful rather than as a hindrance in decision-making.*

_____ *Box of matches*

_____ *Food concentrate*

_____ *50 feet of nylon rope*

_____ *Parachute silk*

_____ *Portable heating unit*

_____ *Two .45 calibre pistols*

_____ *One case dehydrated Pet milk*

_____ *Two 100-lb. tanks of oxygen*

_____ *Stellar map (of moon's constellation)*

_____ *Life raft*

_____ *Magnetic compass*

_____ *5 gallons of water*

_____ *Signal flares*

_____ *First aid kit containing injection needles*

_____ *Solar-powered FM receiver-transmitter*

THE CHINA SYNDROME[33]

In the aftermath of a complete melt-down of the reactor vessel at a metropolitan nuclear plant, twenty people are crammed into the sub-basement storeroom of a large downtown department store. Unfortunately, there is just enough food, water and air available for nine individuals to survive the months of waiting before the deadly fallout clears. Given these circumstances, it is up to you to pick the survivors. It will be worthwhile to remember, in making your choices, that not everything will have been destroyed. There might be some vegetation, animal life and other scattered remnants of civilization remaining.

1. *Donna Van Dyke: 9 years old, white, illegitimate child of Sandy Van Dyke, good health, very weak student.*
2. *Sandy Van Dyke: 33 years old, former prostitute, born-again Christian, has worked for the past five years on a farm where she lives and takes care of her daughter.*
3. *Warren Goldman: 60 years old, white, rabbi, survivor of Nazi death camp, excellent health, has headed present congregation more than twenty-five years.*
4. *Candi Camerisi: 26 years old, white, two years of college, sociology major, good health but became addicted when morphine was used to kill pain after an auto accident.*
5. *Tony Camerisi: 3 months old, son of Candi and estranged husband, nursing.*
6. *Professor Carter Sloan: 36 years old, white, PhD in History, unemployed, wife started divorce proceedings blaming mental cruelty and child abuse.*
7. *Shirley Sloan: 37 years old, white, married to Carter Sloan, B.S. in Botany, an avid gardener, hysterectomy last year, has had emotional problems ever since.*
8. *Carol Ann Sloan: 7 years old, daughter of Carter and Shirley Sloan, excellent student and musician, bed wetter.*
9. *Becky Lee Jackson: 28 years old, black, mechanic and electrician, anti-union, good health, drinks, no religious preference.*
10. *Stephan Brigham III: 21 years old, white, woodsman, trapper, excellent health, homosexual, devout Methodist, built his own log cabin in Oregon.*
11. *Marcia Carmichael: 16 years old, white, high school drop-out, anti-social behavior, criminal record, good health, excellent athlete.*
12. *Maria Sanchez: 35 years old, Chicano, Catholic, G.E.D., cooks in school cafeteria, pregnant, good health.*
13. *Dennis Davis: 18 years old, Presbyterian, honor student, good health, ran away from home twice, his father is an alcoholic who beat him.*
14. *Arthur Williams: 53 years old, white, high school graduate, handyman, good health, member American Socialist Party.*
15. *Father Maurice Richards: 38 years old, white, priest, numerous arrests in recent years, has lived and worked in the fields with migrants in California in an attempt to organize a union to bargain with their employers.*
16. *Larry Fleming: 29 years old, black, B.S. from Yale, completed third year of medical school, militant, bitter toward whites, smokes pot and feels it should be legalized.*
17. *Jefferson Fleming: 13 years old, black, brother of Larry Fleming, average student, overweight.*
18. *Kenneth Lester: 42 years old, white, consultant, sells tax shelters to wealthy businessmen and women, has an ulcer.*
19. *Michelle Du Four: 36 years old, white, housewife, high school diploma, good health.*
20. *Edmond McEwen: 33 years old, white, A.S. Construction Management, has diabetes.*

---

[33]This exercise was inspired by the film *China Syndrome* and adapted from J. W. Pfeiffer and J. E. Jones, *A Structured Handbook for Human Relations Training* (California: University Associates, 1974).

Facilitating the Exercises

The counselor takes the lead in providing instructions to the group. Since most exercises are enhanced by the facilitation of two people — the director and an observer — the instructor serves as an observer during most activities, moving from group to group to see how the students interact, asking questions and, on some occasions depending on the exercise, sharing his own views.

The NASA exercise involves the class in its first experience with group consensus. There are two parts to the experience. The students are instructed first to rank order the items they individually believe to be most important. Once group members have completed this portion of the exercise on their own, they each begin discussion of their choices with peers. The group's responsibility is to be certain that each individual agrees to the rank ordering of each item. As far as possible, the director and observer make certain that no single member of the group forces his views on another. The students have twenty minutes to reach consensus. This is ample time for these groups of five to nine students to experience the dynamics of group.

When the twenty-minute session is over, each group is asked what rank ordering it has decided upon. Once these are written on the board, the counselor begins the discussion of group dynamics, asking "How did you decide upon this order?" The facilitators proceed by asking each member what his role was in the group. Some of the questions they ask, to which students freely respond, are: "Who was the leader of the group?" "How did he become the leader?" "Was anyone able to sell the group on the entirety of his original rank order?"

The next several days in class, the session begins with a directed free-writing. At the first session, students are asked to write on how they perceived themselves to interact with the group, what they believed their roles were. At the second, they write a response to a situation where they go to a party with a friend or date, but do not know anyone else there. At the third, they write on the topic "What do you do to survive through the day?"

The China Syndrome, which is facilitated in much the same way as the NASA exercise, is more crucial to the students because it asks them to make life-and-death decisions based on very general information. They are instructed first to make individual decisions and then exchange views with their groups. The counselor and instructor again observe.

Students tend to be argumentative with this exercise. For one thing, the subject is inflammatory to begin with. For another, the students end up discussing their own values for the entire twenty minutes. While any student who has had survival training is treated as the group leader in the NASA exercise, each individual is a potential leader in the China Syndrome since each is an expert on his own values. The most confident students are ordinarily the most vocal, but observers remind the groups that they must reach consensus.

After consensus is reached, the counselor talks about various values that come into play in reaching decisions about the problem the groups confronted, listing them on the board. Students are instructed to take any one of those values and write for ten minutes about why they believe it is such an important one. Some of the more usual values mentioned are age, sexual preference, gender, skills, education, and experiences. These writings are shared with the whole class.

Once students have identified values most significant to them in deciding which survivors to retain in the China Syndrome exercise, they are instructed to write a brief synopsis in which they include their strengths that might be considered by a group within the same type of exercise. The instructor and counselor write with the students and freely exchange what they have written.

This gives the instructor opportunity to discuss the selection and use of detail in writing, something already being discussed in class. He also gives the assignment that students are to look over the list of survivors in the exercise and come into class prepared with one sentence for each which will be used to argue for the retention of one of those characters and the expulsion of the other. These sentences are used to reinforce the idea of thesis statement, and students are given time in class to actually begin an essay on one of these characters. Later in the week, they are also instructed to go back to their sketches of themselves and develop a thesis statement, defending their retention, and then relying on the details they have included to support their thesis.

Goal Setting

One of the most pressing problems for most developmental writing students is their general inability to set goals that are both reasonable and achievable. In fact, the initial impetus for putting a counseling segment into the developmental writing course was the students' inability to prepare assignments. As a result, goal setting has taken a role of considerable importance in the course, whether it is a subject for the counseling segment or is discussed in terms of completing assignments for the lecture section.

Goal setting is discussed early in the term when the instructor leads a discussion during the orientation of students' responses to English classes. One subject that invariably comes up is why English courses are required. With any luck, the instructor helps the students see that the developmental writing course, like other courses they must take, will lead to a college degree. Completion of the English requirement, if seen as a short-term goal, will help the students achieve the long-term goal of graduation. Further, the completion of a given assignment, if seen as a short-term goal, will contribute to successful completion of the writing course as a long-term goal.

This sounds, of course, very fundamental. Yet these students differ from traditional students in a variety of ways; one important way is in seeing how their lives can be organized to create time for all the jobs that must be done. In one sense, the instructor is teaching study skills when he suggests ways of organizing time and actually outlining goals for a given day.

One thing about these students that becomes apparent over a long period is that they lack a clear sense of where

they are in terms of time. They fail to see a college education in the scope of the other events in their lives. At least at the start of the term, many of these students admit that they have come to college with one goal, to hang around. While the instructor is giving guidance from class to class throughout the term on how to finish assignments, he is also arranging class time so that students can begin an assignment in class and ask the help of the instructor if help is needed.

A typical class might begin with a ten-minute freewriting or directed freewriting followed by ten minutes of discussion. By using exercises either from the book or on dittoes, the instructor will review the assigned material. The material is reinforced by returning to the freewriting as an example. The students may be asked to summarize in one sentence what they have written (thesis statement); find examples of simple, complex and compound sentences; or break their freewritings into several parts and summarize those parts with single sentences (topic sentence). Then they will work in groups discussing what they have found. Afterward, an assignment might be a revised version of their freewritings in which special concern is paid to thesis statement, sentence variety, or topic sentence. By paying close attention to assignments by beginning them in class, students are more likely to finish what needs to be done outside of class.

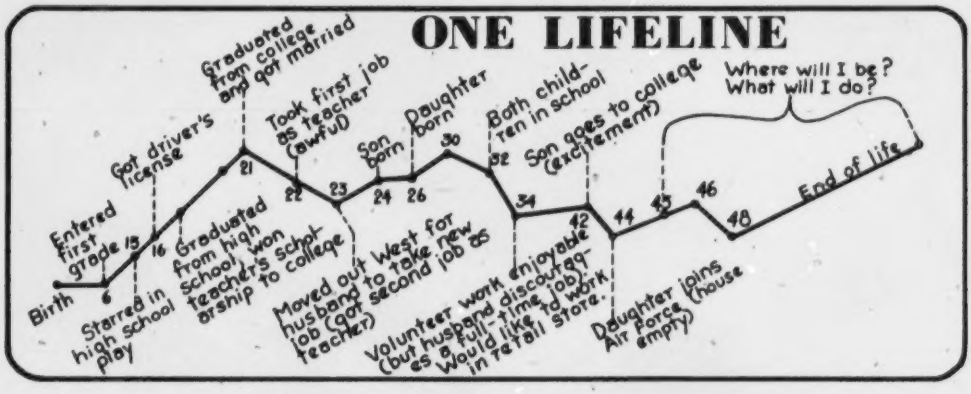
Another way of helping students achieve short-term goals is by making certain the course syllabus handed out at the beginning of the term is followed closely. Nothing more disturbs a student who is actually trying to approach the course responsibly than finding out that the course is open to change at any time.

Despite these attempts by the instructor to make fulfillment of objectives possible, students still will come to class unprepared, using excuses that would make Kotter blush. But an instructor in a developmental writing course must be consistent. Nothing can help him lose credibility with these students faster than inconsistency. If the instructor says something will be done a certain way — for instance, the use of certain time for holding conferences — he must follow through with what has been promised.

Most of all, students need a sense of regularity and the security that certain things will not change. They need to know class starts at 9:00, not 9:10. They need to know assignments are due on the set date and time. They need to know that in this incredible flux of college, the instructor's moods will be consistent.

In keeping with this attitude, students need to know that many of the materials they must learn during the term can be learned in the allotted time. The course must carry reasonable expectations; if it does not, how can the students ever learn to set reasonable and achievable goals for themselves? As will be seen in the next Sub-Chapter, even sentences and paragraphs are taught as patterns anyone can learn.

The counselor carries some of this burden. The objectives of his goal-setting discussion conform with class discussion during that time about writing narrative essays, including the writing of a variety of kinds of sentences. The Lifeline activity, used during Summer 1980, is one the instructor draws upon for two weeks during the middle portion of the term.



Sketch a line to represent your lifeline. The line can be straight, slanted or curved. Different points along the line might mark the ages you were or stages you've gone through. Put a check to show where you are right now and then continue this line out toward your future. Show what thoughts (dreams) you have about the future and what you expect from it.

Finally, put (1) where you took the greatest risk of your life. Place (×) where you encountered an obstacle that stopped you from getting what you wanted. Use (0) to locate a major decision that was made for you by someone else. Put (+) at the point of the best decision you've ever made and (−) at the worst decision you've made.[34]

[34]Nelle Scholz, Judith Prince, and Gordon Miller, *How to Decide: A Guide for Women* (New York: College Entrance Examination Board, 1975).

Facilitating the Exercise

The Lifeline exercise is introduced by the counselor with the statement that the students should only participate as fully as they want. Since there will be some writing involved in the exercise, they should write something they feel comfortable dealing with.

They are instructed to sketch out a lifeline indicating the important events of their lives. The counselor reviews with the students the sample lifeline on the handout and then gives the students ten minutes to draw a line of their own. He encourages them to take the line out into the future. "What do you see yourself doing in two years?" he asks. "In five years? In ten?"

In four years of using this exercise, it has become apparent that students take the lifeline very seriously. They come to see their present position in terms of time and place in light of all the major experiences of their lives. They come to see how they have gotten here. They recognize lost chances, unachieved goals, best decisions, worst decisions, barriers, and decisions made for them. One thing that seems always true is that the line leading to the present moves upward, indicating that college has been a good experience.

The students are instructed to take one "marked" experience (see instructions on Lifeline exercise, page 22) and write about it fully. They are reminded that these writings are to be shared and that they should deal only with subjects they can comfortably share with the others. Nonetheless, students share experiences that are exceptionally personal. One woman, otherwise silent in the class, offered that the greatest risk of her life was her involvement in a bank robbery, one of several experiences of that sort. Another man told of a decision he made to take a friend from the country to a house party in his new neighborhood. The friend was shot to death.

The experiences are not offered to shock. Since so many of the students have had such experiences, they are expressed in surprisingly matter-of-fact tones. What does happen, however, is that the students begin to see some pattern to their lives, a pattern that has begun to change with the decision to come to and stay in college. Again, since the line moves up to their present experience, the present experience might be viewed as a favorable one.

The students are then encouraged to discuss what they see themselves doing in the near future and how they will go about achieving those goals.

When they come to the lecture portion of class, directed freewriting takes one of several directions. Depending on the class, the instructor may discuss further the "marked" areas of the lifeline or how the present fits into the overall pattern of events, or he may focus more on future goals. It is obviously possible that the instructor might do all three. In any case, students have plenty of information to develop into a narrative essay. After editing their directed freewritings, the instructor has them work in groups for proofreading, to make certain they are writing good sentences, sentences appropriate to edited American English. (See Sub-Chapter, "Nuts, Bolts, & Other Ways to Improve Self-Concept," for a discussion of how sentencing is taught.)

Values Clarification

Values identification and clarification follows quite logically from a concern with the major events of the students' lives. For one thing, students are encouraged in their narrative essays to discover the "why" of their actions, examining the basis for decisions and the beliefs that impelled their actions. Values may be defined as "those things or personal characteristics we feel are worthwhile."[35] Both The China Syndrome and Lifeline exercises have worked toward making the students alert to values. And these exercises have helped the students write essays with detail, depth and the kind of self-discovery most writing teachers hope their students will write.

During the two weeks of values clarification in the counseling segment of the course, the instructor is doing a unit on expository writing or "explanatory writing." The function of an expository essay is to give information of some sort. The students discuss opinion and argumentation as types of expository essays. The purpose of the counseling segment is to permit the students to evaluate their opinions based on a broader understanding of their value systems.

Two exercises are used during this segment of the counseling portion of the course: an Assertiveness Training Film and The Alligator River Story. The film presents students with four vignettes whose characters attempt to impose their unreasonable demands on the person to whom they are speaking. For example, one character acts out the role of an unreasonable boss speaking to his secretary. The boss has a goatee, paisley tie, and slicked-back hair. He requests that his secretary do several jobs during her lunch hour and, in addition, take extra work home with her that night, work she will not be paid for. He speaks in matter-of-fact tones as though he fully expects that she will not refuse these tasks. Another vignette presents a young long-haired auto mechanic who has done work on a car. Most of the work was not approved by the owner, though the mechanic shows disdain and disrespect to the owner when he complains.[36]

The Alligator River Story is a classic exercise for values clarification.[37] The goal of this exercise is to give the students a start on writing comparison/contrast essays.

---

[35] McHolland, *Human Potential Seminars*, p. 38.

[36] *Assertive Training for Women, Part II* (American Personnel and Guidance Association, 1973).

[37] Long a part of counseling folklore, the exercise has not been traced to a single source.

THE ALLIGATOR RIVER STORY

Once there was a woman named Abigail who was in love with a man named Douglas. Douglas lived on the shore of a great river. Abigail lived on the opposite shore of the river. To make matters worse, the river which separated these lovers was teeming with (you guessed it) big, hungry alligators.

Anyway, Abigail wanted to cross the river to be with Douglas but (you guessed again) the only bridge had been washed away. Nevertheless, Abigail went to ask Bluto, a riverboat captain, to take her across. Bluto said he'd be glad to help out, providing she would go to bed with him first.

Downhearted, Abigail refused and went to a friend, Charlotte, to talk things over. After all was said and done, Charlotte let it be known she wanted nothing to do with the whole mess.

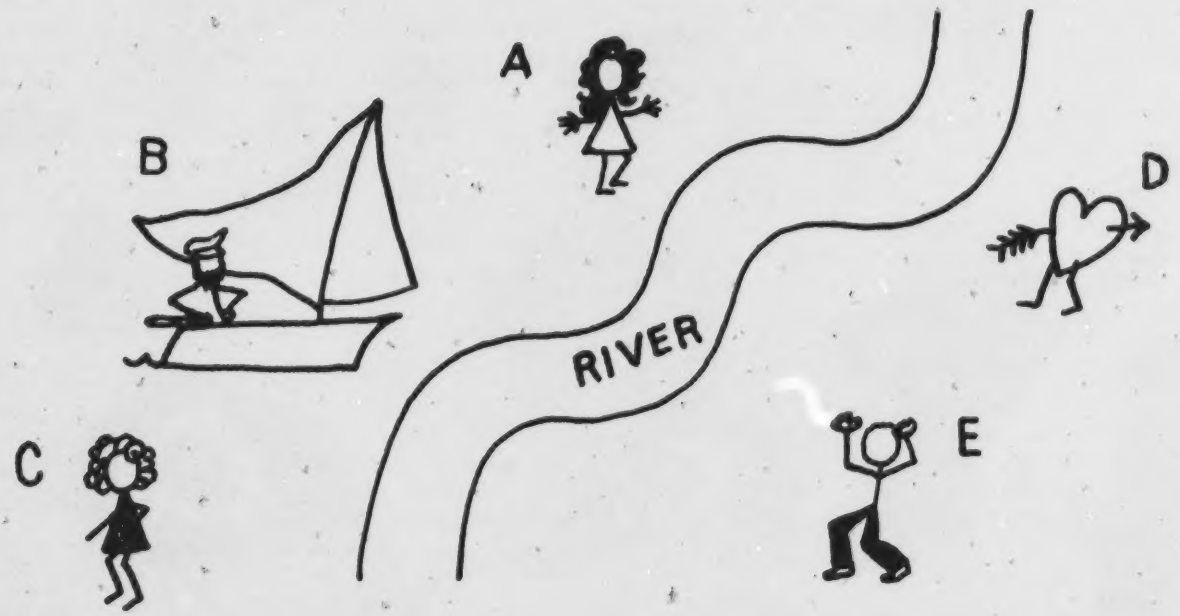
At this point, Abigail felt her only alternative was to accept Bluto's terms. As these things go, Abigail kept her promise and so did Bluto. After a short ride on the riverboat, Abigail and Douglas were together once again.

Well, with "happily ever after" on her mind, Abigail decided to tell Douglas about her affair. Hearing this, Douglas told her to get lost or something like that.

Rejected, dejected and just generally bummed-out, Abigail turned to Ernest with her sorry story. One thing led to another and Ernest stalked off to beat the tar out of Douglas.

As the sun sets in the West, all we can hear is Abigail's laughter.

Explain your feelings about one individual in this situation.



Facilitating the Exercises

Since the goal of these two exercises is to make the students alert to their values and give them material to develop into expository essays, the counselor begins by alerting the students to be as aware as possible of why they respond to the four characters in the vignettes and the five characters in the Alligator River Story as they do. Why do they respond this way? Have they learned from their parents to do so, from their peers, from the culture at large? How are values formed?

With the Assertiveness Training Film, between each vignette students are asked to make five-minute writing responses to the characters. The responses are not discussed, however, until the end of the film. When the counselor does discuss the writings, he does not break the class into groups to do so. Each student works from his own set of values, and the seating arrangement in the classroom is intended to emphasize this individuality.

The counselor asks students to volunteer to read their responses to a given vignette and then discusses the response, helping the student identify the values at play in the writing. Then values are discussed generally.

The instructor asks the students to go back to each of their responses and, for each one, write a sentence that summarizes that response. He then discusses topic sentences and their relation to paragraphing. Students are requested to look over each of their four responses and then write a single sentence, a thesis statement that will incorporate each of the topic sentences. Their assignment for the next lecture class is to bring to class a finished first draft of a six-paragraph essay in which they discuss the role of assertiveness in their lives or begin with a definition of assertiveness as the thesis and then amplify their definition in the remaining paragraphs. Again, this gives students a start on an essay so that all they need to do at home is write the introduction and concluding paragraphs. In addition, they have had reinforced for them the notion of topic sentence followed by several points of support, the goal for that week's lecture portion of the class.

The Alligator River Story evokes enthusiastic responses from the students. The counselor asks the students, again individually rather than in groups, to write a response to any one of the characters in the story. After they have taken ten minutes to write, he asks for responses systematically, beginning with Abigail. Invariably, controversy arises on the hot issue of a double standard for the behavior of men and women.

The instructor then asks the students to summarize their feelings about one character with a single sentence that might be used as the topic sentence of a longer essay. During the next lecture session, students do the following directed freewriting: "Respond to the same character you wrote about yesterday. But now do it from the point of view of someone close to you (i.e., parent, husband, wife, girlfriend, etc.)."

At least two things result from this exercise. First, students get some greater sense of how their values developed, especially if they write the second paragraph using a parent's point of view. Second, the students go home after the lecture period with a start on a comparison or contrast essay using the parallel form (all about one subject, then all about the other). Again, all they need to work on at home are the introductory and concluding paragraphs. The next class session they work in groups and take the essays, with responses from their peers, home to revise. The following class period, the essays are submitted to the instructor.

Clearly, any number of different writing activities might be devised using these values exercises. Following are other kinds of directed freewriting exercises used at Manassas.

FREEWRITING EXERCISES

1. *Describe yourself as you think you really are, with all the insights that few people ever have.*
2. *Take time to consider a hero or villain as you remember them from your youth. What qualities did these two possess?*
3. *What kind of landscape best describes you? Describe the setting of this landscape in detail.*
4. *Imagine yourself as being on a three-day trip by train. The person next to you is somewhat older than you and of the opposite sex. He/She will not stop talking and you have no way to get away, cannot move to another seat, get off the train, etc. You must confront this person. How would you handle the situation?*
5. *You have just slept through a very important examination. How would you go about asking your teacher for a make-up?*
6. *If you remember a dream, describe it in detail. What does the dream mean to you?*
7. *You are walking among a crowd on a busy New York City street. Someone comes up to you and asks for some change. How will you respond?*

Affirming Personal Strengths

In addition to the obvious desire to instruct students in the fundamentals of writing, the ulitmate goal of the developmental writing course is to send students into the college writing class believing they can write and, as a result, succeed in college. Again, improved self-concept has a lasting and unique affect on school achievement. Fittingly, personal strengths are discussed during the final two or three weeks of the course's counseling segment.

The exercise used at Manassas is based on the McHolland chapter "Acknowledging Personal Strengths."[18] As McHolland points out, developmental writing students tend to be experts on their weaknesses and shortcomings. If someone states flatly that he is good at a particular skill, he is viewed ordinarily as a braggart. Especially among these stu-

[18]McHolland, *Human Potential Seminars*, Chapter 9, pp. 50-57.

dents who have made failure a by-product of education, very few are capable of affirming strengths. Yet the entire developmental course administers this affirmation in a large dose.

Throughout the term, students repeatedly are sent the message that, given the opportunity, they can succeed in the course, in college, in life. Little things matter with this affirmation — remembering a student's name, complimenting a student on his appearance, sitting with students in the cafeteria, talking to them about matters that may have nothing to do with school, even participating in various school activities. Clearly, teaching in this fashion calls upon the English teacher to be a kind of anti-English teacher — not in the sense of ridiculing the school, its requirements, other faculty, and the writing program — but in taking risks in friendships with students, defying the usual way writing is taught, and experimenting in the classroom until he finds the most suitable method for reaching these very special students who have been labeled developmental.

So much can be done to help these students affirm their own worth. Comments on a student paper can focus first on what is right in that paper, on the strengths of what the student has written. Since it seems necessary to point out flaws in the paper — in fact, many students request it — it is more uplifting to the student and pedagogically more sound to point out how a given writing can be improved. This is different from pointing out weaknesses. The students already know they have trouble writing. What they don't know is that they are capable of doing many things well. What they don't understand is that each essay is an entity in itself. What they need to know is how to improve, not what is wrong with them.

This same attitude can carry over into the other aspects of the course. Conferences need not be something stiff and formal, need not be something students fear. Conferences can be had at any time and without appointment. They can be held while walking around campus or while sitting under a tree. When a student errs in class, the instructor can reassure the student by pointing out "We haven't discussed that yet" or "Look, I'll explain this to you right after class."

Elizabeth Haynes concludes her survey on the research into the teaching of writing with the following: "Perhaps the single most important thing that teachers of writing can do is to make the writing process a positive experience for all students. Teachers should adopt the habit of recognizing and praising outstanding student achievement . . . . I believe very strongly that noticing and praising whatever a student does well improves writing more than any kind or amount of correction of what he does badly, and that it is especially important for the less able writers who need all the encouragement they can get."[39]

Consistent with the attitude toward students throughout the term, the following exercise is used to conclude the course.

Students fold a large sheet of paper lengthwise in half, writing their name on each. On one side they write strengths they see in themselves. One the other, just at the top, they write "Strengths Others See in Me."

The paper is taped to the wall with the "Strengths Others See" half in view. Classmates circulate from one sheet to another writing strengths they have seen in that student throughout the term.

Once strengths have been identified for each student, they come forward in front of the class one at a time and compare what they have seen in themselves with what others have seen.

Facilitating the Exercise

The instructor and counselor take part in this exercise. The result has been a very positive experience for everyone participating in this exercise over the past six years.

Since the exercise comes late in the term, no writing is derived from this experience, though the writing which students are doing at this point in the term seems to benefit from the extra effort students put into it.

Nuts, Bolts, & Other Ways to Improve Self-Concept

Because the cornerstone of Manassas' developmental writing program is the belief that improved self-concept will result in improved school achievement, everything done in class takes into consideration the student's feelings and self-image. From the way the English placement test is administered to the way student writing is graded, the total program is geared to building student self-esteem.

English Qualifying Examination

Clearly, when a college opens its doors and admits any "persons who are high school graduates, or the equivalent, or who are at least eighteen years of age, and are in any case able to benefit from a program at the community college,"[40] it invites non-traditional students to encounter the difficulties of obtaining a college education. In keeping with the community college commitment "to serve all youth and adults who can benefit from one of its programs," the Virginia Community College System Policy Manual states that "Developmental or preparatory programs shall be offered to prepare individuals for admission to the college transfer programs and the occupational/technical programs in the community college. These developmental programs shall be designed to develop the basic skills and understandings necessary to succeed in other community college programs."[41]

[39] Haynes, "Using Research in Preparing to Teach Writing," p. 87.

[40] *Virginia Community College System Policy Manual*, 1975, p. 6-1.

[41] Ibid, p. 5-9.

These statements are important to an understanding of how the Manassas developmental writing program functions. More directly than schools on any other level of education, community colleges confront the problem of why Johnny can't write. In a very general sense, the community college takes responsibility for the literacy of the community. The task of making writers of hundreds of students who enter college each quarter unable to write is awesome, and the task of identifying those who need developmental work is crucial to a community college's operation.

The English Qualifying Exam (EQE) is used to identify students in need of a developmental writing course at Manassas. It complies with the VCCS directive that "Each college . . . present a plan to the Chancellor's Office which will provide for proper course and curricular placement, and which will assure serious attention to the validity, reliability, and practicality of whatever placement instruments or tests are used in the colleges thereby demonstrating the colleges' accountability for their means of placement decision-making."[42] The English Qualifying Exam was developed by the English faculty of the Annandale Campus of Northern Virginia Community College.

Since 1976, each student entering English courses or a full program of study at Manassas has been required to take the EQE, along with other tests in mathematics and reading. On the basis of each student's EQE score, he is placed in English 111 (English composition), English 001 (developmental writing), or given the option of enrolling in English 001 or in English 111 and Writing Lab, where he is assigned specific supplementary work to help him succeed in English 111. Placement decisions differ among the various tests offered, but in one test of 50 questions currently in use at Manassas, scores of 29 or higher identify the student as capable of entering English 111; scores of 22 or lower, English 001; scores of 23-28, English 111 plus Writing Lab.

Once the EQE is scored, a student finds out immediately which course to sign up for. In the instance of a student falling in the "gray area" (23-28 in this example), a counselor explains the options. Most of these students enroll in English 111 and Writing Lab, though some decide to take English 001.

When the test initially was used to identify students for various courses at Manassas, it was given the first day of classes after students had already registered. Students then were separated from their classes and given their test results. Obviously, this placed those already enrolled in English 111 who actually needed English 001 in an embarrassing situation.

As the program works now, students are not singled out. They take the EQE prior to registering, receive their scores immediately, and meet with a counselor for score interpretation and placement advice. When the developmental writing course begins on the first day of the term, the instructor rarely needs to discuss the purpose of the test with students since that has already been done in the testing center.

[42]Ibid, p. 6-26.

The Course Syllabus as a Contract

The course syllabus is very important to developmental writing students; they view it as a contract and rely upon those beginning-of-the-term agreements throughout the course. It is crucial that these agreements be read directly from the syllabus and discussed at the outset so there will be no misunderstanding later in the term about what is expected from the students. A good syllabus is every bit as important to these students as the orientation and counseling segments of the course since it establishes the terms of the ongoing relationship between student and teacher. Manassas' developmental writing course syllabus is reproduced in its entirety in Appendix A.

Course Purpose

The following definitions from the VSSC Policy Manual are important to understanding the course purpose which students confront in the syllabus. "A developmental studies student," states the Manual, "is one who is enrolled in developmental courses preparatory for admission to an occupational/technical or college transfer program."[43] The developmental writing course is, in a sense, a testing ground. The student finds out if college is right for him, and the college finds out if the student is, in fact, "able to benefit from a program at the community college."

One reason for a relatively high mortality rate in developmental writing is the fact that students do use the course as a way to find out if they can succeed in college. It is also true that some students never actually finish the developmental writing course after two or more quarters of trying. These students simply may not be able to benefit from a program of study. This must be viewed as a possibility and never as a failure. College has never been right for everyone.

It is essential that students understand that, because developmental writing is "preparatory for admission," the five hours of credit they pay for do not fulfill any requirements toward their degree and will not transfer, even as electives, to a four-year college. Most students accept this fact of college life, but some challenge the instructor about the wisdom of enrolling in a course which both holds them back from a sequential offering of the college composition series and fails to earn credit hours on their transcripts. In such instances, the instructor must patiently and honestly explain what the course intends to do, why such a course is offered, and why these students are enrolled in it.

The most difficult of the course purposes to explain to students who hate to write is the one which proclaims: "The student who completes English 01 will have acquired the basic skills necessary to have a good chance of success in English 111 (English composition) or any course based on the fundamentals of written composition."[44] Unlike college

[43]Ibid, p. 6-24.

[44]Verbal Studies Course Syllabus, Northern Virginia Community College, Manassas Campus, 1978.

programs where students must enter courses where they will write, the more technically oriented curricula have many students who view writing courses as a waste of time. With these students, perhaps the best argument for taking a writing course is that the process of writing brings students in closer contact with themselves. By approaching the course from this perspective, the instructor undercuts arguments with technical students that invariably end with "But, then, I'd hire a secretary to order spark plugs for me."

Unlike more orderly and programmed students who matriculate directly into college, the non-traditional student detects insincerity and condescension immediately and views it as a personal confrontation. It is foolhardy, for instance, to tell these students that they will rise in the esteem of their peers once they have mastered edited American English and can write a five-paragraph essay. Most of our non-traditional students at Manassas do not want to rise in the esteem of their peers in any socially conventional way. The irony is that they do not want to be isolated either. What we forget is that "rising in the esteem of one's peers" can be an isolating experience as well.

Course Objectives

We have already noted that the best way to set objectives for a developmental writing course is to survey freshman writing instructors about their expectations of incoming students. This process was followed on two occasions at Manassas, and the list of seven objectives on the course syllabus indicates, in a general way, what those expectations are. It is useful to let students know where these objectives come from and who is responsible for them. This provides a transition into the course, especially important since students sometimes are uncertain as to who created the EQE which got them into the developmental course to begin with.

The course objective is simple: to write an essay of several paragraphs which would be graded "C" if turned in to the instructor in English 111 (a course the developmental instructor has often taught). The specific objectives — that is, what makes up a "C" essay in English 111 — are topics addressed one at a time during the course.

Procedures

Course procedures have changed somewhat over the years as I learned by trial and error and by reading the research on the teaching of writing. In general, the research supports changes made in course content.

For years, traditional grammar had been taught in NVCC developmental writing courses. But the research overwhelmingly indicates that traditional grammar is an "inefficient and ineffective" way to teach students to become better writers.[45] As early as 1935, the Curriculum Committee of the National Council of Teachers of English (NCTE) reported that scientific studies had not shown that the study of grammar was effective in eliminating writing errors.[46] By 1960, it was possible for Strom to summarize over 50 studies which dealt with whether the formal study of traditional grammar improved written composition and other skills in English.[47] Strom concluded that a knowledge of traditional grammar has little effect on accurate expression in writing and speaking. In the report of the Dartmouth Conference, Muller suggested that the study of traditional grammar may have a harmful effect on the improvement of written composition.[48] The case for teaching structural or transformational grammar is no more convincing. "Linguistics is about as effective as traditional grammar in improving writing," Sherwin observes.[49] It is no wonder that our developmental students who scored 100% on grammar exams could not write sentences.

When I first put Manassas' developmental writing program together, I assigned an essay each week — a total of 11 by the end of the term — in the belief that the greater the number of writing assignments, the greater the chance for improvement in writing. Yet Dressel reported in 1952 that frequency of writing itself does not improve students' compositions.[50] And in 1969, Arnold agreed that frequent practice in writing does not result in improvement.[51] There is reason for this.

For years the focus in the teaching of writing was on creating a finished product, something to be turned in to the instructor for a grade and, perhaps, an explanation (usually in the form of a "defense" of the grade). As researchers have discovered more about the way people learn to write, the manner in which words and recognizable patterns of words are generated, there has been a shift in pedagogy toward making students more aware of the process of writing. This new focus in writing courses has placed emphasis where it belongs: on writing as an ongoing, constantly developing function. Revision has risen in recent years to the forefront of researchers' concerns. Does revision happen even as a writer develops his first draft? What happens during the pauses or lapses most writers experience while writing? Do good writers use this lapse time in a manner different from weak writers? Is there such a thing as a "final" draft of an essay?

---

[45] Stephen J. Sherwin, *Four Problems in Teaching English: A Critique of Research* (Scranton, Pennsylvania: International Textbook Company, 1979), p. 168.

[46] Wilbur W. Hatfield, *An Experience Curriculum in English*, A Report of the Curriculum Commission, National Council of Teachers of English (New York: Appleton-Century Company, 1935), p. 223.

[47] Ingrid M. Strom, *Research in Grammar and Usage and Its Implications for Teaching Writing*, Bulletin of the School of Education, Indiana University, 5 (September 1960), pp. 13-14.

[48] Herbert T. Muller, *The Uses of English: Guidelines for the Teaching of English from the Anglo-American Conference at Dartmouth College* (New York: Holt, Rinehart, and Winston, Inc., 1967), p. 102.

[49] Sherwin, *Four Problems in Teaching English*, p. 168.

[50] Paul Dressel et al, "The Effect of Writing Frequency Upon Essay-Type Writing Proficiency at the College Level," *Journal of Educational Research*, XLVI (December 1952), p. 292.

[51] Lois V. Arnold, "Writer's Cramp and Eyestrain — Are They Paying Off?" *English Journal*, LIII (January 1964), p. 14.

Evaluation and Grading

One matter given careful scrutiny at Manassas is the matter of evaluation. Grading in writing courses usually follows one of two methods. The first and more traditional method makes use of "range finders." An instructor confronting a batch of essays reads until he finds an "A" essay, a "C" essay, and an "F" essay. Once he has found these, the instructor grades the remaining papers using the range finders as standards. This method of grading is consistent with the traditional discourse theory where an essay is viewed as a final product and measured against other essays rather than evaluated in terms of specific objectives for a particular writing assignment.

The second method of scoring essays, Primary Trait scoring, is an outgrowth of current discourse theory. Primary Trait scoring focuses "on just those features of a piece which are relevant to the kind of discourse it is."[52] Another explanation: "Primary Trait scoring is not concerned with qualities of writing . . . that are presumed to be characteristic of *all* good writing. Rather, it asks readers to determine whether a piece of writing has certain characteristics or primary traits that are crucial to success with a given rhetorical task."[53]

Manassas' developmental course is set up in such a way that Primary Trait scoring can be used. The instructor lists seven objectives for the course and then stresses no more than two or three of those objectives for each assignment. The effect is cumulative; once students have mastered locating and limiting a topic on the first assignment, they are expected to locate and limit topics in the assignments that follow. The student's final evaluation, as stated in the Faculty Advising Handbook of Northern Virginia Community College's Annandale Campus, is determined under the following guidelines:

> The conventional A, B, C, D, F grading system is not used for developmental courses. The instructor will tell the student what he needs to be able to do in order to be ready for higher courses. When these objectives are achieved and the instructor feels that the student has the skills he needs for the other courses and programs, the student will receive an S (satisfactory) and will be recommended to go into the other courses. If at the end of the quarter the student has not achieved the objectives but is making progress towards them, he will get an R (re-enroll) and can re-enroll for further work in the course. If his lack of progress and other circumstances are such that the instructor feels that the student needs to re-evaluate his goals, he will be given a U (unsatisfactory) and will be recommended for counseling. Please note that this is not a "pass/fail" system. It is simply a system of recording that (S) the student now has the skills he needs to go into another course, or (R) he is still working towards getting those skills, or (U) he needs to take another reading on his motivation to see if he really wants to continue. A (W) indicates withdrawal or administrative drop.[54]

Since the instructor need not concern himself with traditional grades, he can place greater stress on comments which indicate how fully a student has met the objectives of a particular writing task.

Commenting assumes a role of special importance when grades are not placed on essays, and the research shows that this approach is well founded. How do students respond to grading on essays? "A mixture of criticism and praise, with praise dominating, produced the most satisfied and confident writers," Clarke reported in 1969.[55] Some of the research indicates that praise by itself also produces confident writers. "It seems safe to conclude at present that although some of the studies related to frequency of writing are inconsistent, most of them point to the contention that mere writing does not improve writing. Further, although more research is needed to discover the most effective kinds of marking and teacher comments, it seems safe to conclude that from the studies to date, intensive corrections of errors is futile."[56]

Given this information, especially valuable since it relates directly to self-concept, I decided to place some restrictions on the number of comments made on a given paper. Since I expect the student to display competence with only two or three items per paper, the relevant comments I make are limited in number. The summary comment, again consistent with the research on student response to narrative grading, begins by stating what went well in the essay, usually mentioning the required trait and then any other matters the student handled adequately. Then I point out how that particular essay might be improved, rather than simply stating its weaknesses. If a student has not mastered the required trait for that writing or has not demonstrated competence with a trait supposedly mastered earlier in the term, I confer with the student. The conference is loosely structured, as suggested earlier, focusing first on strengths and then on what the student might do to improve his work with a given trait. This might involve the assignment of outside work accomplished at the student's own pace or tutoring by writing laboratory personnel.

Since I now require six papers instead of 11, more time is spent with revision. The research suggests that when the activity of pre-writing produces materials that might be profitably revised, it results in improved knowledge of the writing process and a steady increase in the number of identifiable writing traits a student can master. "Pre-writing or pre-composition is used . . . to mean specifically any of the structured experiences which take place either before or

---

[52]Charles R. Cooper, "Holistic Evaluation of Writing," in *Evaluating Writing*, ed. Cooper and Lee Odell (National Council of Teachers of English, 1977), p. 11.

[53]Ibid.

[54]*Faculty Advising Handbook*, Northern Virginia Community College, Annandale Campus, September 1976, p. 30.

[55]Cited in Daniel J. Dieterich, "ERIC/RCS Report Composition Evaluation: Options and Advice," *English Journal*, LXI (November 1972), p. 1269.

[56]Haynes, "Using Research in Preparing to Teach Writing," p. 85.

during the writing process and which influence active participation on the part of the student in thinking, talking, writing, working in groups, etc."[57]

From a purely pedagogical standpoint, the counseling segment of our developmental writing course provides students with a pre-writing activity that incorporates thinking, talking, writing, working in groups, and sharing of what was written — a composite of cognitive activities prior to the actual writing assignment. All of this is a part of the larger and ongoing process of writing a specific assignment. Widvey, for instance, reported in 1971 that writing ability was improved through the use of a problem-solving process similar to the exercises provided in the counseling segment of Manassas' developmental writing program.[58] Students improve their writing when they are given opportunities to share what they write with peers.[59] In fact, the research bears out the belief at Manassas that student writing improves once students begin to work in and trust groups.

> The idea is simply to write for ten minutes . . . Don't stop for anything. Go quickly without rushing. Never stop to look back, to cross something out, to wonder how to spell something, to wonder what word or thought to use, to think about what you are doing. If you can't think of a word or a spelling, just use a squiggle or else write, "I can't think of it." Just put down something. The easiest thing is just to put down whatever is on your mind. If you get stuck, it's fine to write, "I can't think of what to say, I can't think of what to say" as many times as you want; or repeat the last word you wrote over and over, or anything else. The only requirement is that you *never* stop.[60]

Freewriting is never graded, nor necessarily even read by the instructor. Still, students freewrite into a journal and can draw from the journal any time during the term for ideas, phrases, or entire entries that might be revised and submitted to the student peer group for comment and then, after another revision, to the instructor.

Freewriting and focused freewriting are essential to the program at Manassas. For one thing, students are able to keep private any writing they decide they prefer not to show to anyone. In addition, freewriting helps students overcome the most fundamental barrier to writing for developmental writing students: the inability to find a subject. Eventually even the most stubborn or "blocked" writer will give in to a subject, especially when the freewriting is focused. The third benefit from freewriting relates directly to current discourse theory. Elbow and others have suggested that the primary block to good, natural, unaffected writing is the ongoing editing most writers experience.

Writers edit in two ways. First, they edit word choice, idea expression, stress, and focus in sentences even before a word is written on a page. As these words are written, certain choices are made in the mind of the writer. This is called "internal revision" and approximates censorship. The second kind of editing takes place after something has been written. This decision is based less on personal satisfaction and more on what the intended audience will expect. Freewriting produces what Elbow calls "garbage." But garbage, in this sense, is good insofar as its creation liberates the otherwise poorly prepared writer from his fear of formal rules and limitations.

The Textbook

Given my views on matters such as freewriting, grammar, grading, and revision, finding an appropriate text was a difficult task. In my first year at Manassas, I inherited a programmed-learning text which aspired to teach developmental students how to write sentences by teaching them grammar. During that year, I found students who could score 100% on objective tests, yet could not put the abstract Latinate grammar to use in writing sentences. While I incorporated many of the ideas espoused by Macrorie and Elbow in my classes, I could not justify teaching traditional grammar. As a result, I often used my own materials for the developmental writing course.

Shaughnessy's fine study showed the need to find a textbook which organized all of the ideas I had been using. In the first four years of my involvement in developmental writing at Manassas, I changed books four times. The only books available were texts on sentences with such condescending titles as *Correct Writing* and texts on paragraphing written for students far beyond the reading levels of developmental writing students.

The book presently used in the course is *The Random House Guide to Writing* by Schor and Fishman. This book is strongly supported by current discourse theory and research done over the past thirty years on the ways people learn to write. Unfortunately, it is hard for some developmental writing students to read at length and to understand, despite the fact its authors have made every possible concession to the reading levels of most students who have difficulty writing.

Schor and Fishman encourage students to write immediately by using freewriting. "For one thing, you can write immediately because you know the language," they explain. "The book assumes you know grammar, but it does not require that you be familiar with grammatical terms and labels."[61]

Schor and Fishman work on the premise that discovering something to write about is the first concern of most writers; as a result, freewriting is an extremely useful process. "Writing itself produces ideas and brings them forward so that you can see them."[62]

---

[57] Ibid., p. 86.

[58] Cited in Charles R. Cooper, "Research Roundup: Oral and Written Composition," *English Journal*, LXIII (September 1974), p. 102.

[59] Ibid., LXIV (December 1973), p. 74.

[60] Elbow, *Writing Without Teachers*, p. 3.

[61] Schor and Fishman, *Guide to Writing*, p. 6.

[62] Ibid., p. 9.

By using freewriting or focused freewriting often, ideas are brought out to a place where the writer not only discovers what he wants to say, but also can work and rework those ideas. The first two chapters of the book help students tap in to their own minds. None of the more inhibiting material (sentence structure, paragraphing, for example) is introduced early in the term. This permits students to grow in confidence and in the knowledge that they can, in fact, fill a page. All they must do is write and write detailed accounts of personal experiences and opinions. Chapters 3-5 focus on arrangements of ideas, discussing thesis statement in Chapter 4, and proof-reading in Chapter 5.

Chapters 6-9 focus on sentences in a way that avoids diagramming, though they do not avoid terminology entirely. At this point in the term, I supplement the text with dittoed material on sentences. The system I use is based on structural linguistics and the Christensen model for sentence combining.

My approach rests on the belief that almost everyone can drive without knowing how to tear down a clutch, or walk without memorizing the names of all parts of the leg. This analogy seems to hold true in the case of learning how to use the language since it is true that children, by the age of five, know virtually all they need to know about the language to be able to successfully communicate with it. This is supported by the aforementioned research which questions the notion that learning the parts of a sentence by name improves a person's writing. In fact, as an unpublished survey conducted in 1978 shows, what ordinarily happens is that the process of learning the parts of the sentence by name is so hard for some students it actually turns them off to writing.

Since sentence patterns are predictable and repetitive, it is possible to provide the students with patterns that look like geometric formulae. The symbols used in the system are as follows:

SP: The subject and all the words that cluster around it. This may also be the subject by itself.

VP: The verb and all the words that cluster around it. This may also be the verb by itself. The verb is the only word in the sentence which indicates a change in tense. Once the verb is identified, students have an easy time discovering the subject.

CP: The completer phrase which either completes the action of the verb or tells us additional information about the subject.

Additions: Additions indicate time, place, sometimes in the form of a dependent clause. They come before the SP, between SP and VP, after CP.

Conjunction: joins two independent clauses together (CONJ)

Subordinator: joins together an independent clause with a dependent clause (SUB)

With this information, students can see the predictable patterns found in sentences in the English language.

Simple sentence: S = * SP + * VP + (CP) *. Asterisk indicates where additions might be made.

Compound sentence: S = SP + VP + CP (,) + CONJ + (SP) + VP + (CP).

Complex sentence: treats the dependent clause — SUB + SP + VP — as a kind of addition that may come at any of the three places indicated already on the simple sentence formula.

These formulae simplify the complex notion of sentence. Yet even the Latinate grammar, when learned in its entirety, describes a sentence as a unit with a subject, verb and complete idea. Who knows when an idea has been completely expressed? And calling a subject "a person, place, or thing" does not identify the subject of the sentence "Being alone is common for me."

Assignments

It is essential in any writing course that assignments be carefully planned and explained.[63] In a collaborative effort like Intertwine, assignments must grow naturally from counseling segments of the course or else students will see no purpose in having a counselor in the classroom (see the previous Sub-Chapter).

When the assignment does result from the counseling segment, the developmental writing instructor has an opportunity to present the assignment in a unique and unforgettable way. Students clearly are interested in the counseling exercises. The result is that they write vigorously.

The central problem in giving assignments in developmental writing is that of dealing with the student who feels uncomfortable in doing an assignment. At Manassas, I deal with this by making it clear from the start of the term that students are expected to turn in writing assignments on the due date. I explain that if the students fail to do so, they not only violate the rules of the course, but they inconvenience the instructor as well.

Why do students fail to turn in assignments? There are those, no doubt, who simply do not have time on a given evening, after attending school during the day and working at night, to finish a particular writing. This is a real consideration of which a developmental writing instructor must be aware.

Still, students who do not work are also often guilty of overlooking the due date. These students, who comprise a minority of the class population, must be dealt with in some way. In keeping with the positive nature of the course at Manassas, these students are not treated punitively.

Instead, they are regarded as persons who have not made the needed commitment to the course, or students who would like to make the commitment but are so disorganized they do not know when a paper is due. If the classroom is, in fact,

[63] Albert Kitzhaber, *Themes, Theories, and Therapy: The Teaching of Writing in College* (New York: McGraw-Hill, 1965), p. 33.

a place where students like to be, they should find the environment one which encourages them to turn in assignments.

Traditional discourse theory focuses on the product of writing, the final draft or the finished essay. Writing for a teacher who works from this theory can be extremely discouraging for developmental students. For one thing, traditional theory invites the students to work at home or in the classroom on an outline, forcing them to decide what they are going to write about before they have written. For another thing, it does not place a great deal of emphasis on the ongoing process of revision as does current discourse theory. A clear example of how these two theories differ is the different grading systems they call for.

Current discourse theory invites a student to do a prewriting activity of some sort. In the Manassas program the activity is either the counseling segment, a freewriting, or both. As a result, much of the work of writing is done in class. The students can then draw from that work and make it into an assigned writing.

Most important, though, is that students are encouraged to work on an essay for as many as four weeks at a time, receiving comments first from peers, then from the instructor. What they turn in is not a final draft, but a "deadline draft." A deadline draft is simply the essay in whatever form it is in at the time it is due. If it needs more work, the instructor returns it to be worked on. If it fulfills the objectives for that assignment, the student need not work any further on that particular writing.

Besides making the environment one which encourages the completion of work, the developmental writing instructor must make certain that students are aware of the importance of a given assignment. This is done, first, by preparing an interesting presentation of the assignment — a presentation that involves the student in doing something and discovering the purpose of the assignment himself. But this also involves the instructor, early in the term, in a discussion of "commitment."

Commitment is important, if not essential, in developmental writing. Early in the term at Manassas, I talk at length about why students must involve themselves in the course. Without a commitment from the students, I cannot hope to help them enter English 111. The student must agree on the terms of the course: to attend, to complete reading assignments, to work peacefully in groups, to be open to the experiences the course offers, and to do these things when they must be done. I tell the class at the end of the first week (just prior to the final day for dropping and adding courses) that if they return to the next class meeting, I will view their attendance as a sign that they are committed to meeting the course requirements.

No matter how dramatic such a speech is, students return to the class for the next meeting without having made a commitment to the course. They can only hide for so long, however. When assignments do not materialize, when they begin to cut class, they are discovered. These students, not the ones who fail to turn in an assignment because of work requirements, are the ones who make up the majority of course and college drop-outs. While the others are invited to turn in their drafts at whatever stage they have them or are permitted to submit the deadline draft for the next class meeting, the uncommitted students are invited to confer with the instructor.

As in other conferences, the student is told what he is doing well in the course. At all costs, anxiety must be kept to a minimum for both student and instructor. The instructor should, however, explain to the student that there is no harm in closely analyzing his intentions at school. There certainly is no reason for a person to be embarrassed if college is not right for him at this point in time (recalling that these students are generally unclear on the role of time in their encounter with college). The instructor should tell the student that college involves a commitment and if the student is ready now to make the commitment he should do so. If not, the student might be better off putting all of his energy into something else until that commitment can be made.

Attendance and Discipline in the Classroom

Again, the key to these matters is commitment. Developmental students should be expected to attend all classes, especially in a program like Manassas' where much of the course work is done during class time. Failure to attend automatically puts the student behind and, once this happens, the potential for success in the course is greatly reduced.

A student who disrupts the class presents a different type of problem. But in Intertwine the problem usually takes care of itself. Students who are talking openly and honestly to each other often take it upon themselves to discipline a disruptive student. If this fails to happen in the class, the instructor calls for a conference similar to the one outlined above.

Chapter III

Intertwine and Developmental Mathematics

Marilou Giacofci, Assistant Professor of Mathematics
Northern Virginia Community College, Manassas Campus

What Shall We Call the High-Risk Mathematics Student?

The existence of high-risk students in mathematics programs throughout the United States has been recognized by the American Mathematics Association of Two-Year Colleges since the 1970's. A survey conducted by this organization during the past decade revealed that most institutions recognize the problem of the under-achieving student in mathematics and that nearly all institutions have initiated compensatory programs.[1] These programs are designed to meet the needs of the student who is unprepared for credit mathematics. Students who are classified in this category generally fall into two groups: those whose secondary preparation is insufficient to master the requirements of a credit college transfer course, and those who have not received any preparation in the secondary mathematics courses which are generally required for a two-year, four-year college, or vocational-technical program.

As with English, remedial, basic, and developmental language barriers inhibit the identification of mathematics students and prevent an adequate description of a program designed to meet their needs. Terminology currently used within the literature of mathematics education ranges in description from the remedial or basic student to the high-risk student, under-achiever, and returning-to-educational-settings student. There is no concurrence within the literature, so we have had to select the terminology which best describes those students enrolled in our program.

Who are the students for whom we are trying to provide adequate instruction? What are we to call them?

To answer these questions, one must first understand the academic background of students entering the mathematics program at Northern Virginia Community College's Manassas Campus. The State of Virginia requires only a single year of mathematics for high school graduation, taken any time during the last four years, or two years of mathematics, taken from eighth grade through graduation. Except for this requirement, no specific courses are designated, and the student may select from general mathematics courses or business arithmetic. Most high school students who have no plans to enter either a two-year or four-year college do not consider taking further mathematics courses. The absence of guidance from high school teachers or counselors and the presence of peer pressure precludes further study beyond the minimum acceptable requirements. After graduation, when these students attempt to enter the job market, they find that their mathematics skills are inadequate. This problem is further compounded by the fact that for most of these students, as many as three years have elapsed since the last mathematics course was taken. The community college provides the opportunity for such students to review skills before entering the job market or enrolling for further study.

For other students the decision to attempt two-year or four-year programs comes after graduation. While one year of high school mathematics is sufficient for graduation, it is inadequate preparation for most certificate or degree programs. Students who need to supplement their high school mathematics preparation in order to meet prerequisites for advanced study come to the community college for this preparation.

There is another group of recent high school graduates who, while they have received credit for advanced mathematics courses at the high school level, made such low grades as to render the courses useless. They received, in short, inadequate preparation. When they score poorly on mathematics placement tests at the college level, they learn they need remedial instruction.

Often these students are not able to identify exactly which courses they have taken at the high school level. For example, when a student responds that he has taken two years of algebra, does he mean that he has taken Algebra I and Algebra II, or does he mean that he has taken Algebra I, Parts 1 and 2? One of our feeder school systems offers a three-year integrated mathematics curriculum which is to cover one year of algebra and one year of geometry. Students who have taken this program are not always aware that their instruction included only one year of high school algebra. In these cases, the student does not have adequate preparation to enter the college transfer courses and may not have enough background for mathematics courses in vocational programs.

An additional group of community college students are those who have had adequate preparation in mathematics at the secondary level — but from five to thirty years ago. This includes military personnel changing careers, housewives returning to school, and those who recognize that their jobs will dead-end without further training. Many others wish to take computer science courses and simply need to review algebraic skills, while others seek preparation for advanced marketing and statistics.

Although all of these students differ in their backgrounds and needs, they share common goals and problems. All are identified as high-risk students. For those who did not take any advanced mathematics courses at the high school level, their motivation for not doing so makes them high-risk students. Why did they not take additional courses? Did they fear mathematics courses? Did they receive inadequate guidance or was the opportunity for advanced courses even presented to them? For many, social environment and economic necessities have closed the door to further study in the past. Will peer pressure prevent them from completing the necessary courses now? Do they have the necessary academic orientation and study skills they will need to succeed?

For the students who did take advanced courses but were not successful, many of the same questions may be asked. Was the instruction adequate? Do they have the necessary academic orientation and study skills? Are their current

[1] James Baldwin et al, "Survey of Developmental Mathematics Courses at Colleges in the United States," *Community/Junior College Research Quarterly* 1 (1977), pp. 341-353.

goals realistic and in line with their abilities? A record of past failures labels these as high-risk students, too.

Students returning to the academic setting after many years run a different risk. While they are generally highly motivated toward specific goals, fear of mathematics often makes them delay in enrolling in that first course. Job, family, and home commitments present overwhelming pressures, and thus become excuses for procrastination and failure. In many cases, these excuses mask anxiety and prevent advancement.

Meeting the needs of such a diversified group has long challenged two-year colleges offering credit-transfer programs and vocational-technical education. When the number of underprepared students was small, programs to meet their needs were incorporated within the general instructional program and supplemented by tutorial services and adult basic education programs. But with the advent of community colleges and their open door admissions policy, the number of students requiring assistance has grown.

First attempts to meet the needs of high-risk mathematics students were closely related to traditional instructional techniques, and most were unsuccessful. Innovations in the development of alternative programs are generally credited to community colleges, which recognized the inadequacy of traditional methods. Their alternatives included methodologies ranging from programmed instruction, individualized instruction, tutorials, laboratories, and computer-assisted instruction, to discussion groups and team teaching.

Program descriptions soon became obscured by language difficulties. What were those programs? Were they remedial, basic, developmental, supplemental, compensatory? What was the appropriate terminology?

The term "basic" is one commonly used to describe programs for high-risk mathematics students. The term implies that there is a cohesive group of mathematical skills which all students must acquire regardless of individual goals. A "basic" mathematics program would cover those computational and problem-solving skills necessary for survival; within the narrowest of definitions, this would encompass little more than general arithmetic.

The term "basic" has been rejected at Manassas. While we want the student to acquire survival skills, much more is desired. Mere survival skills are inadequate preparation for the abstraction required in credit mathematics courses and may not be adequate for courses in vocational and technical areas either.

"Remedial" is another program designation. Implied in this term is the process of diagnostic and prescriptive teaching. In reality, the diagnostic and prescriptive procedures are restricted to certain skill areas of computation and problem solving. This terminology has also been rejected at Manassas because of its limited applicability. It is quite possible, for example, to diagnose that a student does not know how to work a word problem involving percentages. Once the problem is identified, corrective exercises are "prescribed," either to develop computational skills or enhance problem-solving abilities. When this has been completed, often the student still fails to work the necessary word problems. Why? Because for many students, failure is the result of a problem external to the diagnostic and prescriptive procedure. Failure may be related to reading comprehension, attitude, or understanding of the physical properties of the problem-solving situation. Traditional "remedial" techniques lack the mechanism for probing for the causes of failure.

A second limitation of the "remedial" designation is its restrictiveness of scope. Effort is made to correct error patterns acquired through early instructional techniques, and learning deficits are corrected, but there is no mechanism to change attitudinal patterns nor extend learning toward the abstraction necessary for success in credit mathematics.

The descriptive term we chose at Manassas, then, is that of a "developmental" program of instruction. In practice, our developmental program is an extension both of basic and remedial programs; it incorporates basic survival skills, uses remedial techniques of diagnostic and prescriptive teaching, and seeks to understand the reasons for prior lack of success in mathematics. Further emphasis is placed on the students setting measurable goals for their own achievement and students' responsibility for meeting these goals.

Manassas' developmental program is one in which student, teacher, and counselor each participates in assessing the student's strengths and weaknesses, and one in which each participates in achieving measurable goals. Attitudes toward mathematics are explored through discussions about mathematics anxiety. Study skills are emphasized, problem-solving skills are taught, and individual student motivation is stressed.

It is through this triad — this joint effort of student, instructor, and counselor — that developmental students attain personal growth and mathematical knowledge at Manassas.

A Student Profile

A survey of students enrolled in developmental mathematics at Manassas during the 1981 Winter Quarter provides a general picture of high-risk mathematics students in community college classrooms today. While age, employment, academic preparation, and educational aspirations of developmental students will surely vary among institutions, the profile can help in understanding the needs of this special student population.

Of 167 students enrolled in our developmental program during Winter 1981, 142 completed the survey. The survey with its summarized results are presented in Appendix B.

In brief, it is interesting to note that while over 50% of the students, both male and female, were in the age group from 16-22, 8% of the males and 14% of the females were over 40 (see Table III-1). Nearly 50% of the students were enrolled for 11-20 credit hours; at Northern Virginia Community College, a full-time student is defined as one who is enrolled for 12 or more credit hours (see Table III-2).

Table III-3 shows the percentage of students employed either part-time or full-time. It is of interest to note that 75% of the students in the age group 16-22 were employed full- or part-time, and that 70% of all females over the age of 40 were also employed. The percentage of students receiving financial aid and the type of aid they receive is indicated in Table III-4. In all but one age category (ages 31-40), a larger percentage of males than females received financial aid.

As the survey indicates, the developmental mathematics student is an individual with many commitments. The developmental program is only a small part of his life. He has a job, he has other classes, and the goals he sets for himself are related to these commitments.

The educational goals of Manassas developmental students are indicated in Table III-5. Most of the students have plans to continue their education beyond the single course. Many seek a two-year degree at the community college, but the majority want to transfer to a four-year program. Students' plans to continue with credit courses in mathematics are indicated in Table III-6. Again, the survey reveals that while many students are preparing for technical, nonprofessional degrees which utilize mathematics (MATH 101-102, MATH 118-119, MATH 121-122-123), the majority of the students plan to continue with transferable mathematics courses (MATH 181-182-183, MATH 161-162-163). A description of course content and entrance requirements for these courses accompanies Table III-6.

We gained additional information about the needs of our developmental mathematics students by examining their mathematics background. As indicated previously, the mathematics requirement for high school graduation in the Commonwealth of Virginia is a single year of mathematics taken in grades 9-12, or two years of mathematics taken in grades 8-12. This requirement may be met by general mathematics courses, business mathematics courses, or consumer mathematics courses. Algebra is not a course required for graduation. A summary of this preparation is given in Table III-7.

As the table indicates, the secondary preparation of our developmental students is weak at best; only 33% of the males attempted a course with the difficulty level of trigonometry, while the percentages for females were even lower. The highest level of mathematics for the majority of females was a general course at the senior high school level.

When one compares the levels of academic preparation with students' aspirations toward college-level credit mathematics courses, the broad scope of the developmental mathematics program becomes obvious. The needs of developmental mathematics students are quite diverse from another aspect as well. Many of them are taking at least the introductory skill-level courses to review material which was covered in a secondary general mathematics course. This includes elementary algebra for many of the male students. For others, especially the females, much of the material is completely new. An additional factor is the time elapsed since the last mathematics course was taken. For the majority of students, this is a minimum of 3-5 years. Skills in mathematics must be used to be retained, so for many of these students, the skills must be retaught.

Additional and perhaps even more significant information on the nature of developmental mathematics students comes from the students themselves. Counselors report that these students frequently discuss their feelings about mathematics in strong, negative terms. It is not unusual for a student to say, "What I really want to go into is engineering (or electronics or architectural technology), but I can't because I'm no good at math." Even when they are reassured that the College offers developmental courses that will provide the opportunity to gain a good mathematics foundation, they are still intimidated and express anxiety about enrolling. Many students go on at length about negative mathematics experiences, recalling in great detail the year they began having difficulty in mathematics or a particular teacher from earlier days who made them feel inadequate.

Other students will begin a conference with a counselor by saying they want a college degree, but they need to choose a program or a major that has no mathematics requirement. They are desperately lacking in confidence that they can acquire mathematical skills, though they recognize the disadvantage of not having these skills in today's job market. Developmental students feel high levels of frustration because they are not in a competitive position in today's high technology job market, negative about themselves because they think they are unable to master mathematics, and anger because of past negative experiences with the subject.

This, then, is a picture of developmental mathematics students entering community colleges today — students who clearly need more than another traditional mathematics course. The next Sub-Chapter describes our experience in trying a new approach to teaching them, the collaborative effort of faculty and counselor in the mathematics classroom.

Instructional Triad in the Mathematics Classroom

The collaboration of faculty members and counselors in our developmental mathematics program did not happen overnight. It evolved out of the necessity of meeting diverse student needs, from faculty frustration, and as a result of the success which had been observed in developmental English classes at Manassas.

The need for a team approach was felt by mathematics and counseling personnel from the Manassas Campus' first quarter, but the reality of collaboration has been more recent. During our first few years of operation, the limited number of students enrolled dictated compromises in course offerings, instructional techniques, and faculty utilization. These compromises were felt both in our developmental and credit programs.

By necessity, full-time and part-time instructors all were expected to teach developmental and credit mathematics

courses. Because Manassas was in competition for students with the other four campuses of Northern Virginia Community College, a wide variety of credit mathematics courses had to be offered. These included courses in vocational and technical mathematics as well as others for the general college transfer program. Many courses were offered at night to meet the needs of the local adult population, and the decision was made to conduct them in the traditional lecture format.

Informal placement testing screened students for credit courses; those who did not meet the minimum score were referred to the developmental program. Developmental mathematics became a catch-all course to prepare students with deficient academic backgrounds for a variety of credit mathematics offerings. The diversity of student needs and restricted staffing dictated that the developmental curriculum be designed in a self-paced, individualized instructional mode. The role of the instructor was that of consultant within the classroom. He was required to give instructional assistance in all areas, ranging from basic arithmetic to advanced trigonometry.

For instructors who were accustomed to the traditional lecture method of instruction and prepared to teach advanced technical or college transfer courses, developmental courses became a scheduling necessity but hardly the most desirable teaching assignments. As a result, most instructors concentrated on preparation for their credit courses, and much of the organization of the developmental program was delegated, by default, to a Community College Instructional Assistant (CCIA). Eventually a learning lab facility was established and adequate staffing provided to aid the mathematics faculty in administering tests, grading them, and keeping records.

Frequent faculty turnover within the mathematics department further hindered the establishment of a cohesive developmental program. Recognizing the need for additional support services to aid their developmental students and realizing that for the most part, they lacked adequate training to meet these students' diverse affective needs, faculty members sought the assistance of counselors in the classroom.

At first counselors visited only occasionally, on requests from faculty, to provide information about transfer and program options and to assist in answering technical questions as needed. Eventually the role of the counselor expanded, and today there is a counselor in the mathematics classroom at least once a week for 5-10 weeks during a 10-week quarter.

A major factor in the counselor's usefulness in the classroom has to do with the preparation received by most mathematics instructors who teach at the two-year college level. In general, preparation for mathematics teachers at this level is concentrated within the subject matter of mathematics. Instructors are required to have at least a master's degree with 18 graduate hours in mathematics. While most instructors far exceed this minimum requirement, additional preparation generally is in the area of mathematics itself and not in mathematics education. This subject-area orientation is excellent preparation for teaching credit mathematics, but it is not necessarily sufficient preparation for teaching developmental mathematics. Thus the teacher is often frustrated by his own inadequacies, although he may have excellent mathematical and teaching skills. This frustration can be manifested in lack of dedication to the developmental student, leaving students in academe who need the most encouragement without an advocate in the classroom.

Until recently, most post-secondary mathematics instructors were not trained in diagnostic and prescriptive teaching techniques, skills generally acquired in preparing for elementary education. It was assumed that students would obtain fundamental concepts of mathematics and basic computational competency during the elementary school years, so post-secondary teachers were not adequately trained in these teaching methods. This lack of training renders many present-day instructors unequipped to understand the necessary progression of steps that lead from the recognition of mathematical facts to the synthesis of mathematical thought.

In addition, since most mathematics instructors have met with continued success in mathematics themselves, they often lack understanding of the cognitive and affective problems faced by the developmental student. This leads to impatience and frustration on the part of both the instructor and the students. For these reasons, the intervention of the counselor and the formation of the triad model of instruction — student, counselor, and instructor — became the solution to an immediate problem and the foundation for a comprehensive developmental program.

How the Triad Works

Each person in the instructional triad of student, counselor, and faculty member has specific responsibilities in the developmental mathematics classroom. All three take on roles which differ in many ways from the traditional perspective of mathematics education.

The student's role is that of an active participant in his own education. He is expected to take major responsibility for his own learning and, on a weekly basis, to answer to the counselor and faculty member for his progress. He is responsible for making progress compatible with his ability and the goals he has set for himself.

Regular attendance is the student's reponsibility as well; 70% attendance is required, and in such cases as police swing shifts where work and class schedules conflict, the student is responsible for completing the work on his own or with the instructional assistant in the learning lab.

The counselor's role is to provide support both for the students and the faculty member. The counselor aids the faculty member by making him aware of individual students' affective needs; in observing counselor-student interaction, the faculty member also learns many informal counseling techniques.

The counselor brings to the classroom experience in questioning students — questioning which helps them to focus on their own goals and fears and to break out of self-defeating habits which have hampered them in the past. These habits include procrastination, unproductive study habits, poor time management, and, most importantly, the habit of attributing failure or lack of success to external causes.

The presence of a counselor in the classroom also provides an opportunity for the student to vent frustration without fear of any academic reprisals. Dialogue is established between student and counselor, and this dialogue is maintained outside the developmental classroom. The student finds the counselor is someone to whom he can relate outside the classroom; personal problems not related to school are sometimes explored and support is given.

The counselor also provides guidance on academic matters while in the mathematics classroom — on the requirements of various curricula, the transferability of certain courses, the availability of free tutoring for students who need it. And to help students translate dreams of degrees into reality, the counselor helps students establish long-term and more immediate academic goals.

Not all members of the counseling staff want to take an active role in the classroom. A few prefer a role more divorced from the classroom environment. For this reason, participation in the developmental program remains optional with individual counselors.

The dynamics which are established between teachers and counselors who do participate are of major importance. Individual personalities differ, as well as interpretations of the role of the counselor within the classroom. For these reasons, the counselor-teacher pairing generally is a matter of self-selection. Of course, the schedules of teachers and counselors do not always permit the most desired matches, but compatibility is the general rule. Together the faculty member and the counselor act to aid the student in assuming responsibility for his own learning and personal achievement.

The third component of the triad is the faculty member. While from one perspective, he is a most crucial component, from another perspective he is not indispensable. The instructional material is self-taught and programmed; hypothetically, any student with proper motivation could sit down and master the material. In the most passive sense, then, the faculty member acts as a consultant, available to answer questions posed by the student during classroom time. In this sense, the instructor's role is not crucial. He literally could be replaced by a well programmed computer. While this may seem humorous and irreverent, this is the instructional approach taken by many developmental mathematics programs. When the role of the instructor is seen in such a passive manner, the computer alternative has been shown by many studies to be just as effective as faculty-directed instruction.

Fortunately at Manassas, the volume of students is not so large that we have been forced to take this approach. The developmental mathematics instructor has not been replaced by an elaborate computer facility, nor is his role restricted to supervising classes and answering questions. Active questioning in the classroom creates a dialogue between student and teacher. Sometimes this dialogue focuses directly on the subject matter — how to figure a percentage, how to factor a trinomial. But at many other times, the conversation relates to the diverse needs of the students. What would be the most appropriate sequence of courses to take for mastery as an architectural draftsman? Why is there a need to study principles of geometry if one is interested in computer programming? Why is the study of calculus important to someone planning a career in economics?

Questions of this nature cannot always be answered by a counselor, for they require an understanding of the mathematics discipline which counselors generally do not have. In answering specific questions such as these, the faculty member bridges the worlds of academics and guidance. He also is able to communicate an enthusiasm for mathematics which cannot always be conveyed when teaching specifics like the Pythagorean Theorem.

When a faculty member is able to acquire skills in probing the minds and attitudes of developmental students (he acquires them from observation of counselors, not advanced mathematics courses!), he can use these skills to better understand the process of learning mathematics. This is quite a contrast from the general subject-matter orientation of the college mathematics teacher.

Understanding how the student learns mathematics, why the student does not learn mathematics, and why the student dislikes mathematics allows the faculty member to develop an individualized approach to each student. Experience soon dictates that some students be left alone for a period of time to absorb material, while others require repeated questioning and probing before material becomes clear. A faculty member soon learns which students will take the responsibility for completing assignments and taking tests, and which students must be reminded and prodded.

Experience with these individual differences gives faculty members new perspectives and resources for meeting individual problems. For example, while one non-productive student may be activated by the simple reminder expressed as a brief note on his folder that little progress has been made, more drastic methods must be used to activate other students. These methods sometimes include even tracking down the absent student in the cafeteria, and giving that person some well deserved grief.

By working with individual students, faculty members soon become aware of individual differences in the rate at which students learn material. Since all faculty members teach both developmental and credit courses, this recognition carries over to the instructional techniques used in the credit courses. Within the past three years, it has been observed that the highly structured teaching techniques by which most faculty members were taught and hence imitated themselves, have been replaced by more humane instructional methods. These include more opportunities for untimed tests, tests where the need for memorization is reduced, and giving assignments far enough in advance to ac-

commodate the needs of the very busy student. Through practice, instructors gain skills and techniques necessary to provide for optimum learning in the least restrictive environment.

Students often begin to see the faculty member in a new light as well. No longer is the mathematics teacher the person to be dreaded, the mathematics class the first to be cut on a pretty spring day, or the mathematics assignment the last to be done when other obligations are pressing. The non-restrictive grading system takes away the fear of punishment by the instructor. The teacher's availability for questioning during and outside the classroom adds a new dimension to the perspective that most students have of the teacher. Conversations often lead to a greater understanding of the need for skill mastery in mathematics and for the applications of mathematics. The wide variety of developmental classes — sometimes as many as 13 individual sections scheduled within a quarter — permits the student to select the schedule and often the instructor most suited to his own needs. Flexibility in scheduling — developmental classes are held at such unorthodox times as Friday nights and Saturday mornings — allows many students to work and continue with their studies at the same time.

These, then, are the roles of the student, counselor, and faculty member in the instructional triad. What follows is a week-to-week description of how this instructional system works in developmental mathematics at Manassas.

Programmed Mathematics, Details and Logistics

A typical developmental class will include students studying everything from arithmetic to trigonometry, using a series of self-paced programmed texts. Depending on the number of contact hours they desire, students can choose a three-credit or five-credit developmental course. The three-credit course meets for a three-hour block once a week, while the five-credit course meets twice weekly for two-and-one-half-hour sessions. It should be noted that the "credits" here will not be reflected as credits on a college transcript; rather, they are "registration credits" indicating the hours a student has spent in the developmental classroom.

Students report to class, work in their programmed texts, consult with the instructor individually or in small groups, and go to the learning lab for periodic mastery tests.

Progress is measured by the completion of these tests which are administered at key points in the text, usually at the end of a chapter or at the end of some other definable unit. Each test tells the student whether he has mastered the skill he needs for success in the next step.

At mid-term, the instructor evaluates each student's progress and advises him of his standing. This evaluation is recorded on a separate record sheet, kept by the instructional assistant in the student's class folder. This evaluation and the complete record of tests is kept to follow student progress from week to week and form a basis for the instructor's grade recommendation at the end of the quarter.

There are no passing or failing grades in developmental mathematics. An "S" is earned when a student satisfactorily completes the total number of tests specified in his final goal for the course. An "R" means satisfactory progress is being made but that the student has not yet completed the total number of tests specified; he should re-enroll. A "U" or "W" means the student should reassess his motivations to decide if he wants to continue in developmental mathematics.

These mechanics remain fixed from quarter to quarter for all students. But for each quarter and for each individual class, the dynamics are constantly changing.

Week-to-Week in the Classroom

During the first week of the first quarter, most of the students enrolled in a class are new to the developmental program. Ideally, all of them will have been pre-tested in the learning lab before entering the developmental class. This process works successfully with students who have been referred to the developmental program because they have not passed the proficiency test for a credit mathematics course. Many students, however, elect to enter the developmental program directly. For them, the first class is used for placement testing by the instructional assistant in the learning lab.

For the other students, the first class provides an opportunity to meet the instructor and other class members in an informal setting. As a group and individually, students discuss the reasons they have enrolled in developmental mathematics. The instructor orients them to the developmental program by explaining grading and procedural matters, the specific content of each textbook, and the process of testing for mastery of content (see Appendix C). Students are then free to begin their individual study, with the instructor answering questions as needed.

By the second class meeting, enrollment has stabilized enough that the counselor assigned to the class is introduced by the instructor. Ice-breaking exercises are used at this point to reduce the tension which counselor and instructor feel as keenly as the students. The specific exercises vary from counselor to counselor, but the Name Game described on page 16 is a popular one.

Following this, the instructor and counselor provide a formal orientation to the developmental program. Next, each student is asked to tell the group why he is in developmental mathematics, what skills he hopes to acquire, and for what purposes he plans to use these skills. The answers vary in perspective and maturity of response, ranging from "I had to come because I didn't pass it [the entrance test]" to confessions that the student dropped out of school after the eighth grade. Noting that others may have more reasons to be in the developmental program than they do is often surprising to many students. No longer do they feel alone in this challenge to their learning.

Next, the problem of mathematics anxiety is faced squarely by student, counselor, and instructor. Students are required to fill out the following questionnaire, "What About Math?" based on Shelia Tobias' *Overcoming Math Anxiety*.[2]

[2] *Overcoming Math Anxiety* (New York: Norton, 1978).

WHAT ABOUT MATH?

Finish the sentences in a few words or paragraphs and then look over the picture you have drawn of your attitudes toward yourself and toward mathematics.

1. *When I got bad grades in math* _____
2. *I did well in math until* _____
3. *My high school math teachers* _____
4. *My father felt that math was* _____
5. *Math is* _____
6. *When it was time for math in grade school I* _____
   _____
7. *My ability to do math is* _____
8. *My grade school math teachers* _____
9. *I want to become better at math so that* _____
   _____
10. *When it comes to math men are* _____
11. *My mother felt that math was* _____
12. *When it was time for math in high school I* _____
    _____
13. *My background in math is* _____
14. *Doing math makes me feel* _____
15. *People who are good at math* _____
16. *I like math until* _____
17. *When it comes to math women are* _____
18. *My most positive experience with math was when* _____
    _____
19. *When it comes to math, I find it difficult to* _____
    _____
20. *Female mathematicians are* _____
21. *I haven't done math since* _____
22. *If I were better at math I would* _____
23. *My most negative experience with math was when* _____
    _____
24. *When I got good grades in math* _____
25. *My motivation to do math* _____
26. *When I hear someone say "math is fun" I* _____
    _____
27. *Male mathematicians are* _____
28. *I am anxious about math because* _____

At the time the students are completing this questionnaire, the counselor and instructor fill out the same form. It surprises no one that the counselor has had or still experiences mathematics anxiety, but it is quite a shock to find that the instructor may have had the same problem, often on a grander scale than the students! Experiences with math anxiety are shared, often with the responses of the instructor and counselor leading the way.

Many frustrations are aired at this session, many skeletons removed from the closet. All members of the group soon enjoy a sense of empathy; they are in this together.

The session ends with students completing individualized study plans for the course. Each person identifies how much developmental mathematics he needs, then sets a goal for the quarter. The counselor and instructor stress the importance of setting realistic, measurable goals (see "Guidelines for Goal Setting," Appendix D). "To work hard in Algebra," for example, is not a measurable goal. "To complete Book I of Algebra I" is.

This long-range goal is broken down further into a short-term goal for the next week. If the Algebra I book has 300 pages and there are 10 weeks in which to complete it, a logical goal for next week might be "To complete 30 pages in the programmed text." This session on math anxiety and goal setting has lasted anywhere from 45 minutes to three hours. While it is not time spent learning mathematics, it is time spent learning why mathematics has not been mastered in the past. With this foundation, students are then able to progress and face themselves and mathematic instruction in the future. For students with great fears, individual follow-up sessions often are conducted either by the counselor or instructor or both.

A sample of the goal sheet which states the student's own plans for the quarter follows.

INDIVIDUALIZED PLAN FOR MATH 001

To be filled out 1st week of class.

NAME: _____ *DATE:* _____

PROGRAM OR CURRICULUM HEADED FOR: _____

COLLEGE MATH OR RELATED COURSE YOU PLAN TO TAKE: _____

_____

HOW MUCH DEVELOPMENTAL MATH IS NEEDED?

_____ *Arithmetic Only* _____ *Algebra II* _____ *Trigonometry*
_____ *Algebra I* _____ *Geometry*

MY QUARTERLY GOAL IS: _____

_____

MY WEEKLY GOALS ARE:

	INITIAL GOAL	*REASSESSED GOAL*
WEEK 1		
WEEK 2		
WEEK 3		
WEEK 4		
WEEK 5		
WEEK 6		
WEEK 7		
WEEK 8		
WEEK 9		
WEEK 10		

WHERE DOES THE WEEK GO?

Time	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*	*Sunday*
7 AM							
8							
9							
10							
11							
12							
1 PM							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
1 AM							
2							
3							
4							
5							
6							

In the third session, the counselor and instructor discuss the goal sheets with students individually. Goals are reappraised in light of the week's progress, and realistic goals are set for the following week. The subject of time management arises naturally when some students have not achieved last week's goals. The counselor introduces time management aids including a round-the-clock hourly grid on which students can keep track of how they spend their time during a typical week. Many decide to record their activities on the grid and set this as a goal for the next week.

Subsequent sessions rely less upon the counselor in the classroom. He is there to answer questions and provide information as needed, generally for about 15 minutes once each week. When the middle of the quarter approaches, his role expands again, for it is at this time that the work in the developmental classes begins to slacken. Students are often burdened with assignments in credit classes and do not spend as much time on the developmental program. Here is where the counselor often provides hints on how to study for mid-terms in the credit courses.

Students besiege faculty members and counselors with problems relating to study habits and needs in other classes, and having a counselor in the classroom takes the pressure off what could be explosive situations for the students. At this point, student friendships often are evident. Having a friend is an important factor, especially for the older student who is many ways less assured. These friendships often lead to communal study sessions before or after classes. The informality of developmental classes encourages this exploration of friendships, while structured credit classes do not always provide the catalysts for such needed friendships.

For the remainder of the quarter, the role of the counselor again is diminished. He generally will make a weekly appearance, but he becomes an unobtrusive part of the structure. Classroom time is generally spent on content material, with the instructor answering questions, offering small group lectures to students with similar problems, and making individual diagnoses of errors on tests. The counselor's primary role now is one of support — and gentle prodding if weekly goals are not being met.

A final session of the quarter is spent with the counselor again helping relieve anxiety near exam time, and with the counselor, student, and faculty member assessing progress made during the quarter and planning for the next quarter.

These are the mechanics of the process. The dynamics cannot be summarized in such a manner. They are related to each student's performance, each counselor's satisfaction, and each instructor's accomplishment. While the success of the counselor and instructor is seldom discussed, the performance of the students is best summarized by a recent study which tracked developmental students' progress in the credit mathematics program. The results of that survey are reported in Chapter V.

Chapter IV

A Counselor's View: Benefits and How-To's of Collaboration

Stuart C. Werner, Counselor
Northern Virginia Community College, Manassas Campus

Many advantages of pairing counselors and teaching faculty in developmental classes have been presented from an instructional point of view. Manassas faculty members who share their classroom with a counselor say they have more time to teach and better motivated, better organized students when a counselor is present to help with students' affective concerns, time management, and goal setting.

Benefits of the team approach such as students' increased class participation and personal commitment are easy enough to witness in the classroom. The other advantages of this collaboration, however, are more subtle and not as immediately evident. This is especially true when considering the typical role a counselor assumes at a community college.

Traditionally, most counselors spend the greater part of their day in office cubicles. They are either waiting for scheduled appointments and student walk-ins or attending to program planning and administration. This traditional approach to counseling responsibilities typifies what is often seen as a "reactive" form of student services. This organizational design assumes that it is the student's responsibility to seek counseling assistance on the counselor's home turf — in his office. It also reinforces the separateness of the student services faculty from the "teaching" faculty.

In this traditional model, students and counselors share little common ground on a day-to-day basis. Apart from random intake sessions, pre-registration interviews, or a dog-and-pony-show introduction during orientation, they seldom meet. As a result, counselors in cubicles work primarily with students who are either highly motivated or who have been told that they "should" see a counselor and are therefore probably reluctant to come in for assistance. These students occupy opposite ends of the spectrum and do not comprise the majority of students. The more typical student often feels no pressing need to seek counseling help, perhaps because he thinks counselors are there to serve only the "eggheads" and/or "numbskulls" of the student body.

A collaborative assignment like Project Intertwine provides counselors with an opportunity to meet students on their home ground — in the classroom. In this way, counselors get to know students who might need an extra bit of help but might not seek it. Week-to-week interaction in the classroom often extends to the cafeteria, the campus lawn, or even the stairwells. Conversation moves easily from English and mathematics topics to personal and career concerns; what appears to be a casual conversation in the cafeteria often produces the most significant counseling session one could hope for. Both counselor and student can relax and talk about what is truly important because the stigma of seeking a counselor has been reduced by making the counselor more familiar and accessible to the student.

It is also apparent that being in the classroom gives the counselor an opportunity to observe the student in his habitat. Often counselors must view students in relative isolation, making it necessary to infer or research the specifics of a student's classroom behaviors. Obviously, extended classroom contact provides a much fuller picture. The counselor has a more realistic position from which to work with students and a continuing means of following their progress.

Other counselor-centered benefits include the sense of involvement one feels when sharing the special skills of student development theorists. In the process of facilitating group dynamics, time management, and other such topics in the classroom, counselors can expand their sphere of influence on the campus. Additionally, the interaction and coordination required for this sort of team-teaching program creates a system that actually reinforces itself. Information flows back and forth in many directions as communication between the involved members increases.

Another important benefit of faculty-counselor collaboration comes from what that collaboration demonstrates to students about taking responsibility for their educational goals. In a typical community college classroom, many students are shy, apprehensive, passive rather than active learners. The assumption here seems to be that teachers lecture to dispense information and students simply sit back and absorb it. The teacher is the performer and the students are the audience.

But when the responsibility for teaching is shared, so is the spotlight. Attention is diffused from one "performer" onto two colleagues who move in and out of the primary teaching role while the other poses questions, asks for clarification, and models other behaviors of an active, fully participating student. Add to this counseling segments where students are contributing their personal experience and perspectives to the actual course content, and gradually the realization dawns: the responsibility for learning is a task they, too, must share. If there were no other benefits to collaboration, this realization would be gift enough for any student to take away from a college classroom today.

Another subtle benefit of this collaboration is the sense of continuity it gives students, no minor concern in today's commuter colleges with their growing numbers of part-time instructors. The counselor becomes the "glue" in this ever-changing campus picture, the person many students may know before they come to class. It is important to recall that the counselor may have helped them with their schedule, referred them for placement tests, and oriented them to the school routine even before the quarter begins.

It is no accident, then, that the counselor is present in the classroom at the first class meeting. He starts breaking ice before the instructor starts the lesson, purposely focusing attention on and off the instructor as everyone small-talks and waits for the class hour to begin. This casual interplay is a critical part of Intertwine's method because it provides continuity and a sense of well-being for students who are apt to feel uncomfortable in the school environment.

Ingredients of Successful Collaboration

For any program of faculty-counselor collaboration to be successful, it must be tailored to the administrative philosophy, course content, student needs, and personal chemistry of the school's faculty, students, and facilities.

One of the strengths of our work at Manassas is its individuality; our team-taught developmental mathematics and English courses change from instructor to instructor, counselor to counselor, quarter to quarter. There are, however, ingredients which would seem necessary to the successful duplication of such collaborative programs elsewhere.

First is an administrative atmosphere which encourages interdisciplinary cooperation, an environment our student development dean Dr. Elizabeth Grizzard describes more fully in another chapter. As mentioned earlier, Manassas has located its counseling and faculty offices together to aid daily interaction of counselors and faculty and build interdisciplinary rapport. But even without this useful physical arrangement, an administration can commit itself to the idea that the responsibility for fostering students' academic and personal growth is a shared task.

The second ingredient necessary for successful collaboration is a clear understanding of roles. The counselor cannot forget that he is in the classroom at the instructor's invitation. The instructor is ultimately responsible for course content, and the counselor is supplementing his work. The counselor should play second fiddle and not solo — he must be, in effect, a chameleon, changing colors and adapting to the instructor's style and the personality of the class. This flexibility includes knowing when to ask questions or volunteer responses, when to present class activities and when to defer to the instructor's needs, when to process exercises for English or mathematics content and when to cue into related personal issues.

It is not only important that the counselor remain flexible, but that he continually remind the instructor of his flexibility. For example, it is sometimes necessary to reinforce the fact that the counselor does not have a personal stake in completing every counseling exercise he used in last quarter's mathematics or verbal studies course. Instructors vary in their willingness to believe this, so the idea bears repeating throughout the quarter.

If the counselor has had teacher training, so much the better. This will give him added empathy for what the instructor is trying to accomplish and enhance his usefulness in the classroom. Planning time also is essential for the instructor-counselor team, both before each new course begins and during the quarter.

With these ingredients in place — a clear understanding of roles, flexibility, and sufficient planning time — the counselor can enter the classroom to do what counselors do best: listen and observe, support and affirm. He affirms the instructor's method, affirms the students' strengths, and models aspects of the student role in a supportive yet challenging manner. He asks a student to clarify a fact or an opinion in English class, prompts a mathematics student to complete that extra chapter in his programmed text. And he never stops listening and observing — watching for affective signals from students which the instructor might not see, checking for signals from the instructor that counseling segments are in line with the instructor's goals.

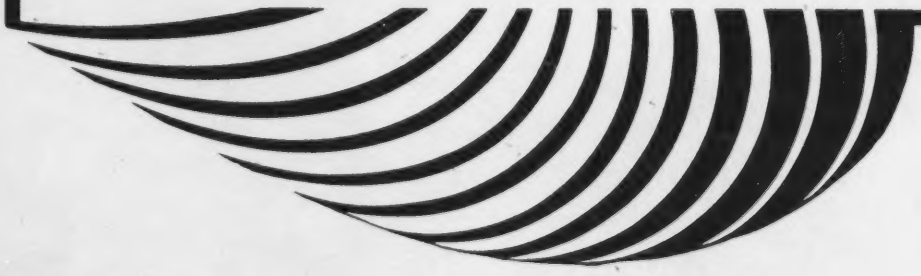
When the counselor is able to adapt to the instructor's goals, it is similar to a good game of doubles tennis. Each hits his own best shots — no hot-dogging, no poaching. In the classroom, this might mean not stepping on each other's words or trying to outshine each other. It might mean changing the counseling activities on a quarterly basis to stimulate the instructor as well as the student. Or it could mean simply supporting each other's attempts to bring forth academic skills in students often used to failure.

It is a delicate and practiced balance.

Chapter V

Measures of Success

Marilou Giacofci, Assistant Professor of Mathematics
Northern Virginia Community College, Manassas Campus



Measures of retention and success of students enrolled in developmental English and mathematics courses at the Manassas Campus from Fall Quarter 1977 through Winter Quarter 1981 were obtained by securing their grades in all developmental classes and grades they received in any subsequent college credit mathematics and English classes. For students enrolled in developmental English during this time period, the withdrawal and retention rates are given in Table V-1 below. A grade of W indicates that the student withdrew from the course during the first quarter, a grade of R indicates that the student must re-enroll before completing the specified objectives, while a grade of S indicates that the student has mastered the objectives and is prepared to enter a college level credit English course.

Table V-1

Withdrawal and Retention of Students in Developmental English Fall 1977 - Fall 1980

Grade Received	Percent
W — no further enrollments	18%
W — student re-enrolls later	1%
R — no further enrollments	13%
S — no further enrollments	31%

For those students who received a grade of S in developmental English and enrolled in subsequent credit courses, the grades received in these courses were "tracked" from Fall 1977 to the present. Grades were tallied in four categories: W — withdrawal during the first quarter, F — a failing grade, D — a passing, but generally not transferable grade, and a final category of C+, all grades which were C or better, and thus transferable. A summary of this "tracking" is presented in Table V-2 which follows. Students tallied in English 111 are those students who enrolled in English 111 and took no further English courses. Students tallied in English 112 successfully completed English 111, enrolled in English 112 and took no additional English courses. In the same manner, students tallied in English 113 successfully completed both English 111 and English 112. A few students successfully completed the developmental course and elected to enroll in courses other than the college freshman sequence English 111-112-113. These are tallied under the category "Other" and include those who took second-level literature courses as well as technical writing courses.

Since a developmental mathematics course can provide for entry into any one of seven credit courses, the analysis of the success rate of these students is more difficult than for English students. The withdrawal and retention rates for students enrolled in developmental mathematics courses are given in Table V-3.

Table V-2

Progress of Students Who Successfully Completed Developmental English Fall 1977 - Winter 1981

Grade Received	English 111	English 112	English 113
W	18%	25%	29%
F	23%	7%	13%
D	4%	10%	6%
C+	54%	58%	52%

Students who enrolled in other English courses — 7%

Students currently enrolled in English 111 — 20%

Table V-3

Withdrawal and Retention of Students In Developmental Mathematics Fall 1977 - Fall 1980

Grade Received	Percent
W — no further enrollments	21%
W — student re-enrolls later	0%
R — no further enrollments	31%
S — no further enrollments	14%

Many students elect to enter credit mathematics courses before receiving a grade of S. This practice allows the student either to maintain concurrent registration in both developmental and credit courses, or to return to the developmental program at a later date if it is necessary for the student to acquire additional skills. This allows students the flexibility of reevaluating their goals in mathematics.

The tracking of students through credit mathematics courses includes students who received either an S or an R and elected to enroll in a subsequent mathematics course. While there are seven possible credit options in college level credit mathematics courses, an analysis of only four courses is presented. The other courses (MATH 101-102, Data Processing Mathematics, MATH 181-182-183, General College Mathematics, and MATH 141-142-143, Calculus) had too few students enrolled for an adequate analysis. Both MATH 101-102, and MATH 181-182-183 are new courses on the Manassas Campus, while MATH 141-142-143 generally requires the college algebra sequence MATH 161-162-163 as a prerequisite. A summary of this tracking is presented in Table V-4. Grade designations are consistent

with those in English, and a further category has been added to indicate those students who withdrew from a credit course and who then re-enrolled in the developmental program.

Table V-4

Progress of Students Who Have Been Enrolled in Developmental Mathematics Fall 1977 - Winter 1981

Grade Received	Introduction to Technical Mathematics MATH 118	MATH 119
W	50%	0%
F	21%	17%
D	0%	0%
C+	21%	83%
W/001*	7%	0%

Grade Received	Technical Mathematics MATH 121	MATH 122	MATH 123
W	32%	45%	11%
F	8%	0%	0%
D	8%	9%	11%
C+	52%	45%	78%
W/001*	0%	0%	0%

Grade Received	College Algebra MATH 161	Trigonometry MATH 162	Calculus MATH 163
W	39%	47%	12%
F	7%	7%	18%
D	5%	14%	12%
C+	39%	33%	59%
W/001*	10%	0%	0%

Grade Received	Finite Mathematics MATH 191	MATH 192	MATH 193
W	39%	0%	10%
F	11%	29%	20%
D	33%	0%	40%
C+	17%	71%	30%
W/001*	0%	0%	0%

*Withdrew from credit course, re-enrolled in developmental program.

Indications for Change

As a result of this tracking, the Manassas Campus has identified a most specific change that must be effected in the mathematics program. The results of the study show that students who enter developmental courses and successfully complete the courses may enter the first quarter of college mathematics and again achieve success without achieving success during the second quarter of that mathematics sequence. A knowledge of trigonometry is required for that second quarter course, and trigonometry is only reviewed in the first quarter course; therefore, a component of trigonometry will need to be added to the developmental curriculum for those students wishing to enter the sequences with a second-quarter trigonometry emphasis.

There also will be broader and more intense discussions on the use of programmed texts in developmental courses. A need exists for a way to teach persons with extremely varied backgrounds in mathematics within one classroom setting. Programmed texts have been seen as almost the only answer to such variety, but now intense discussion will most probably be centered around the notion that mathematics is a language that needs to be spoken, and that it cannot be spoken in courses completely dependent upon programmed texts.

Another realization that has come as a result of examining Project Intertwine is that of the time required for teaching and counseling faculty to collaborate. Developmental English classes based on a collaborative model seem best suited to five hours rather than three hours of weekly instructional time. These changes, which are under active consideration as we go to press, illustrate once again that collaboration in the developmental classroom is, and always must be, a work in progress.

Students Have the Final Word

In addition to tracking the progress of former developmental students, counselors have interviewed currently enrolled students to learn their opinions of Manassas' developmental programs. Stuart Werner, the counselor who spearheaded much of the work with developmental students, has written of his interviews:

> Among the common themes expressed in interviews with developmental English students were references to feelings of aloneness or isolation early in the course. Taken in the broadest sense, this notion of separateness appeared to center on each student's perception of his inability to master basic language skills (reading, writing, spelling, and verbal abilities). For example, it was quite common for students to express self-effacing comments concerning past failings in English classes. Although these remarks were factual, it seemed that many students were still bearing the burden of low standard tests scores and poor grades even after their competency had improved. In addition, few students appeared to realize they were not alone in their plight.
>
> When asked about their impressions of the developmental English format, many students said that their initial apprehensions had been reduced simply by getting to know their fellow classmates a bit better.

Other impressions of the developmental English class touched on the "team" or "group" feeling that was fostered in the class. Here, students of various ages and experiences stated that completing course assignments and the course itself was easier and fulfilling simply because the "misery" of learning to write was perceived as a shared burden.

Beyond this, developmental English students often also seem to have come to terms with finding some relevance for the acquisition of writing skills. Some needed them for future college courses, while others wanted to write more clearly on their jobs. Still others truly hoped to get closer to their own thoughts.

The overall impression conveyed was that students experienced a freshness in this 'new' approach to the teaching of an age-old task. Developmental English was certainly not just another English class, and subsequently, even those students who hated English felt a renewal of sorts. It isn't easy to pin down some of the more general changes that occurred. For example, it would be rare for a quiet, relatively insecure student to turn about and act like a braggart. In this case, it was more likely for the silent student to ask an occasional question or ask for a clarification of the statement, whereas in the past silence might have sufficed. Certainly, one of the more obvious benefits was an increased willingness to communicate. This is true both in class and outside of the classroom.

Although comments concerning the acquisition of decision making skills were not regular, it can be said that students enjoyed, or more accurately, were not bored by the forced choices that confronted them. Class attendance in many developmental English classes was more consistent, either due to the student's curiosity about what would happen in class or perhaps due to their feelings about being a member of a group.

Students talked a great deal about the numerous opinions discussed in class. The concept of facts versus opinions and in some cases even the student's willingness to listen to others, rather than tune out, was noticeable and commented upon. It was significant that while many students felt alone in their inability, ironically, they also felt incapable of saying much of anything that would be new or different from the opinions of others in the class. In effect, it seemed that students wrote more often and better when they realized that they did have different thoughts and feelings from others in the group.[1]

Experiences expressed in interviews with developmental mathematics students were captured on tape during the winter of 1979. These views, often humorous, sometimes poignant, and always insightful, reflect the diversity in educational background and personal maturity of developmental mathematics students. Common to all, however, is the expression of pleasure and elation which results from final mastery of subject matter previously thought to be beyond them.

[1]Stuart Werner, "Interviews with Developmental Students," Unpublished Manuscript (January 1981), pp. 1-3.

WHAT DO YOU THINK ABOUT DEVELOPMENTAL MATH? (Counselors' Interviews with Students)

Do you like the individualized approach? Oh yeah. *What appeals to you about it?* Because people don't have to wait for me and I don't have to wait for people; that's one of the biggest things I like about it. Not everybody has the same initiative, not everybody has the same goals. So I won't have to be locked into a mold with those people.

Well, I find if I work on my own, at my own pace, I usually do better than trying to keep up with the class. If I don't understand something, I can take as long as I want to work it out or ask someone about it.

I'm the typically stereotyped female's attitude, with the female's attitude toward math . . .

I'd like it better if the class was smaller. There's not enough, I mean somedays the instructor isn't even used but usually when you do need her there's a, you've got to sit around and wait because 10 people need her at once.

It's a means to an end, I think. *Those steps you were talking about before?* Yeah, right.

I really like it . . . I do, 'cause I know there'll be somebody there if I need help at 3 in the afternoon or at 8 in the morning.

I think it's great — 'cause if you're in a class where the teacher gets up and she's going on and on and people catch on and you fee dumb 'cause you don't catch on — you usually won't ask questions.

And the tests have been relatively easy. All the books are very instructional, y'know, they're self-explanatory.

Well, I happen to be one who needs oral teaching. It seems like reading and writing are not enough. I don't recall, I can't bring it back from my memory with just reading and writing. That isn't sufficient . . . that's only a temporary memory process for me. I have to hear it orally in order to be able to recall it.

Well, I think that what I'm doing now, see, I'm trying to go for Finite [math] which will help me so I can get, y'know, the required math for transfer to a four-year college and y'know, it's a stepping stone and I like it because it comes slowly and it's gradual.

I like it . . . it's a good idea to have the student working as an individual, y'know, instead of putting you in a classroom and throwing everything at you at once. A lot of people get lost in it . . . this way a student can progress on his own, and y'know if he needs help he can always ask.

I didn't, I never liked math. I wasn't any good in it and I find having developmental math it comes easier and it stays with me.

What have you learned? I mean you've taken quite a few tests, I assume to get as far as you are. What have you learned that you've found useful to you in your everyday life? Or important to you?

Do you mean what have I gotten out of it? So much, discipline of the mind for one thing. My ability to think is improving significantly. I am far more neat in my organizational processes. In almost every aspect of my life . . . it really has, really definitely has improved almost everything.

No, it's like I'd say, it's mostly review . . . there's been a big change in terminology since I took Algebra in high school. It's ah, I think it's a lot easier doing it this way with a programmed text rather than listening to somebody spiel about it for 50 minutes a day.

What have you learned that you've found useful in your everyday routine?

Well, all the math that I've had so far, from Core math [Arithmetic] up to Geometry has been very useful because I'm in [the] Air Conditioning and Refrigeration [curriculum]. You need that in everyday situations, absolutely.

The responsibility of being there . . . I haven't been there much.

Well, I'm learning the Algebra that I need to learn to be put into college math which will be helpful for Business Administration. *Okay*. I mean that's just always helpful.

I was the kind of student who had a lunch hour before my math class and if it wasn't the food that would make me sleep, it would be other things.

That's an interesting question. I like being logical . . . I think I thought I was logical. Learning Algebra and finding myself having a difficult time with it, might be teaching me something about myself — maybe I'm not as logical as I thought I was.

Now, let me say it like this. I learned so much Algebra and now that I know it, if you put a little problem on the board I might get at least close to the answer . . . I feel like I'm a mathematician.

What motivates you? What keeps you going in the math class?

Trying to, trying to stay with my goal. I know that I have to have math in order to reach a certain goal and so I must do it.

For an 8 o'clock class . . . *Yeah, that's what I'm wondering?* . . . it's determination.

Well, the teacher reminding me helps a little bit but the teacher doesn't pressure you and that's the nice thing about it. She isn't holding a club over you per se.

No, it's an intrinsic motivation, purely intrinsic. I want to do it because I don't know it and I want to know it because I like to know.

Myself, I don't like competing with other people . . .

It goes more toward self-motivation than it does having somebody cram it down your throat.

What motivates you? Money. *How do you mean?* It's being paid by the VA. So, if I don't make good grades, then they don't pay me.

To get to my goal, where I can start my curriculum . . . mostly. It's almost fun right now . . . several parts of Algebra . . . I think it's going to get a little harder as I go along.

Like I didn't have Algebra II in high school because I didn't need it to graduate. So, I didn't, of course, think I was going to college then and so that's partly, y'know, another reason I'm glad I can get into it now since I, y'know, made a mistake earlier it's still not too late.

To get done. See how far I can go.

Well, I never really was that math oriented, y'know? I guess that has a lot to do with motivation. I'm more toward the social sciences, y'know, philosophy and stuff like that. I wasn't very good in high school in math at all.

Finishing the books . . . seeing the pages go by. *Really?* Yeah, I really like that. I like seeing I've got half the book done.

Appendices

Appendix A

Northern Virginia Community College, Manassas
English 001: Verbal Studies Laboratory
Course Syllabus

Course Purpose: This course attempts to take student-writers from where they are to where they should be by the time they enter English 111. More importantly, this course attempts to help students discover their own voices in their writings and, thereby, bring them in closer contact with themselves.

Unfortunately, the state does not permit the five hours of credit for this course to apply to any college program. However, this is a course which will aid students in virtually all of their college courses.

Course Objectives: By the end of the term, students should be able to write a complete essay of several paragraphs which would be graded "C" if submitted in English 111. After surveying those who regularly teach 111, I discovered they have specific expectations of incoming students. Those expectations are listed below and will serve as the objectives of the course.

1. stick to a single, limited topic
2. write a variety of kinds of sentences
3. follow a recognizable pattern of organization
4. write a topic sentence with clear, logical examples used for support
5. write a thesis statement
6. support the thesis statement with well-developed paragraphs
7. avoid major grammatical and spelling errors

Procedures: Items 1-7 above will be discussed fully in class. Students can meet these objectives thoughout the course since each essay will stress two or three of the listed items.

Paper 1: locate and limit a topic; stick to a single topic; follow some recognizable pattern of organization

Paper 2: revision of 1 must have an underlined thesis statement

Paper 3: narrative essay; thesis statement; good sentences

Paper 4: organize by comparison and/or contrast; must reveal a variety of sentence types

Paper 5: revision of 4, focusing on using paragraphs as subdivisions of essay

Paper 6: (in class): must demonstrate competence with items listed above

A typical class will begin with a freewriting exercise, then we will discuss it. From there, the assigned reading from Schor and Fishman (hereafter SF) will be discussed and new information will be added. The class will usually end with both reinforcement of new information and revision of writings.

The freewritings will be made into what we will call a journal. For the purposes of this course, please purchase a notebook in which you will keep your freewritings.

Papers will not be graded, though they must be revised until the specific requirements for that paper are met. Final grades are of several types: S (Satisfactory), S with lab (Satisfactory for entry into English 111 only if the student signs up for Writing Lab to accompany 111), R (repeat), U (unsatisfactory).

Attendance: Failure to attend regularly during the term, at least 70% of the classes, is grounds for the grade of U in the course. If you decide to drop out of the course or the school, IT IS YOUR RESPONSIBILITY TO SUBMIT TO ADMISSIONS AND RECORDS A DROP/ADD SLIP SO YOU CAN BE WITHDRAWN FROM THIS COURSE. If you drop out before the sixth week, please let me know so I can give you a withdrawal from the course.

Group Experience: Once each week, for about an hour, Stu Werner will come into our class to run a group exercise. I use these exercises as pre-writing activities (as you will see). This is a part of our course.

Course Outline: This is tentative. Note that all reading and writing assignments are due on the set date unless otherwise changed by mutual consent of student and instructor.

Week 1: Intro to course; from speaking to writing; communications games

Week 2: Discussion of Ch. 1 and 2 from SF

Week 3: Paper 1 due
Ch. 3 SF

Week 4: Ch. 4 SF
time to be spent in class writing Paper 2

Week 5: Paper 2 due (revision of Paper 1)
Ch. 5 SF

Week 6: Paper 3 due
Ch. 6 SF

Week 7: Chs. 7, 8 SF
rework paper for Paper 4

Week 8: Ch. 10
Paper 4 due

Week 9: Revise Paper 4
Ch. 10

Week 10: Final in-class essay; conferences

Appendix B

Developmental Studies Questionnaire
Winter, 1981

Circle the appropriate responses.

Sex: M F **Marital Status:** Single Married Separated

Veteran: Yes No **Age:** 16-22 23-30 31-40 over 40

Employment: Please indicate your occupation. If part-time, indicate the number of hours worked per week.

_____

_____

Does your employer provide any assistance for your education? Yes No

If yes, indicate what assistance: _____

Are you receiving any form of financial aid?
(Ex: VA Benefits, Social Security, CETA) Yes No

Academic Status:

How many credit hours are you taking? _____

Are you program placed? Yes No

If yes, indicate what program _____

- ☐ One-year certificate program in _____
- ☐ Two-year A.A.S. degree program in _____
- ☐ Two-year A.S. or A.A. degree program in _____
- ☐ Will transfer without degree in _____
- ☐ Other _____

Are you, or have you ever enrolled in this or any other developmental class at a community college? Yes No

If yes, what course? _____ When? _____

Why are you enrolled in this course? _____

_____

Mathematics Background:

For each mathematics course which you have taken at the secondary school level, indicate the approximate *letter grade* received and the *year* the course was completed.

EXAMPLE: Algebra I, Part 1	C	1963
COURSE	GRADE	YEAR
General Mathematics J.H.	____	____
General Mathematics S.H.	____	____
Business Mathematics	____	____
Pre-Algebra	____	____
Algebra I, Part 1	____	____
Algebra I, Part 2	____	____
Algebra I (one-year course)	____	____
Algebra II	____	____
Trigonometry	____	____
Mathematical Analysis	____	____
Calculus	____	____
OTHER _____	____	____

Indicate any other mathematics training which you have received, including college courses, job training and military courses.

_____

Mathematics Goals:

Which of the following credit mathematics courses are you planning to take?

- ____ 101-102 Fundamentals of Mathematics for Data Processing
- ____ 118-119 Introduction to Technical Mathematics
- ____ 121-122-123 Engineering Technical Mathematics
- ____ 181-182-183 General College Mathematics (Liberal Arts)
- ____ 161-162-163 College Mathematics (Algebra, Trigonometry, Calculus)
- ____ 141-142-143 College Calculus

If you are not planning to take a credit mathematics course, are you preparing for:

- ____ G.E.D. Exam
- ____ College Entrance Exams
- ____ Nursing Program
- ____ Job Advancement
- ____ Other _____

Results of Winter 1981 Developmental Student Survey

Table III-1

Age Distribution of Developmental Mathematics Students Winter, 1981

MALES	Percent
16-22	56%
23-30	27%
31-40	8%
Over 40	8%
n = 73	
FEMALES	**Percent**
16-22	57%
23-30	14%
31-40	14%
Over 40	14%
n = 69	

More than 50% of both males and females enrolled in developmental mathematics fall within the age grouping of 16-22. At the same time, a significant portion of the students are over the age of 40 (males, 8%; females, 14%).

Table III-2

Number of Credit Hours Taken by Developmental Mathematics Students Winter, 1981

MALES	#Credits	Percent*	FEMALES	#Credits	Percent*
16-22	1-5	23%	16-22	1-5	3%
	6-10	28%		6-10	36%
	11-20	49%		11-20	61%
n = 39			n = 33		
23-30	1-5	13%	23-30	1-5	30%
	6-10	50%		6-10	20%
	11-20	38%		11-20	50%
n = 16			n = 10		
31-40	1-5	50%	31-40	1-5	20%
	6-10	33%		6-10	40%
	11-20	17%		11-20	40%
n = 6			n = 10		
Over 40	1-5	17%	Over 40	1-5	40%
	6-10	67%		6-10	30%
	11-20	17%		11-20	20%
n = 6			n = 10		

* % of Students Surveyed

The numbers of credit hours taken by developmental students indicate that approximately 50% of the students in the age group 16-22 are enrolled for 11-20 credit hours. (At Northern Virginia Community College a full-time student is defined as one who is enrolled for 12 or more credit hours.)

Table III-3

Employment of Developmental Mathematics Students
Winter, 1981

MALES		Percent	FEMALES		Percent
16-22	Full-Time	37%	16-22	Full-Time	8%
	Part-Time	39%		Part-Time	67%
23-30	Full-Time	20%	23-30	Full-Time	10%
	Part-Time	25%		Part-Time	30%
31-40	Full-Time	33%	31-40	Full-Time	20%
	Part-Time	33%		Part-Time	0%
Over 40	Full-Time	33%	Over 40	Full-Time	20%
	Part-Time	0%		Part-Time	50%

Occupations:		*Occupations:*
Carpenter	Porter	Beauty Advisor
Lumber Worker	Analyst	Work Study Student
Nursery Worker	Purchasing Agent	Sales Clerk
Cooks	Bus. Finance	Cashier
Auto Salesman	Printer	Hostess
Gas Station Att.	Engineer Assistant	Computer Control Assistant
Cashier	Plant Engineer	Waitress
Clerk	Research Specialist	Clerk
Layout Fitter	Foreman	Child Care Helper
Dishwasher	Technical Associate	Secretary
Surveyor	Electrical Engineer	Bank Teller
Security Guard		Office Manager
Machinist		Line Girl
Parts Manager		Animal Control Caretaker
Mechanic		Animal Clinic Worker
County Employee		Lab Assistant
Asst. Manager		Computer Operator
Laborer		Receptionist
Storekeeper		Programmer
Technician		Telephone Co. Employee
Meat Cutter		Flight Attendant
Laborer		Bookkeeper
Brick Mason		Typist
U.S. Army		Substitute Teacher
Staff Engineer		Bank Manager
Elec. Technician		Real Estate Sales
Programmer		

Table 3 shows percentages of students employed either part-time or full-time and lists the occupations. 75% of the students in age group 16-22 are employed full- or part-time. 37% of the males in that age group are employed full-time. It is interesting to note that 70% of all females over the age of 40 are employed.

Table III-4

Financial Aid Received by
Developmental Mathematics Students
Winter, 1981

MALES	Employer Pay*	Veteran Status	% Receiving Fin. Aid**	% Receiving Any Fin. Aid
16-22	12%	5%	12%	24%
23-30	15%	40%	40%	55%
31-40	17%	53%	17%	33%
Over 40	33%	67%	67%	100%

FEMALES	Employer Pay*	Veteran Status	% Receiving Fin. Aid**	% Receiving Any Fin. Aid
16-22	8%	0%	15%	12%
23-30	10%	10%	30%	40%
31-40	20%	0%	20%	40%
Over 40	0%	0%	10%	10%

*Types: Tuition, ½ tuition, books

**Types: Federal grant, Social Security, Basic Grant, VA Benefits

Table 4 shows financial aid received by developmental mathematics students. The numbers of males receiving financial aid far exceeds the number of females. Types of financial aid include tuition assistance from employers, federal grants, social security, and Veterans Administration benefits.

III-5

Educational Goals of Developmental Mathematics Students
Winter, 1981

MALES		FEMALES	
16-22		*16-22*	
One-Year Certificate	2	One-Year Certificate	0
A.A.S. Degree	6	A.A.S. Degree	2
A.S. or A.A. Degree	3	A.S. or A.A. Degree	0
Transfer	8	Transfer	9
Other:		Other:	
23-30		*23-30*	
One-Year Certificate	0	One-Year Certificate	0
A.A.S. Degree	2	A.A.S. Degree	0
A.S. or A.A. Degree	2	A.S. or A.A. Degree	3
Transfer	2	Transfer	3
Other:		Other:	
31-40		*31-40*	
One-Year Certificate	0	One-Year Certificate	0
A.A.S. Degree	0	A.A.S. Degree	0
A.S. or A.A. Degree	0	A.S. or A.A. Degree	2
Transfer	0	Transfer	2
Other:		Other:	
Over 40		*Over 40*	
One-Year Certificate	2	One-Year Certificate	2
A.A.S. Degree	1	A.A.S. Degree	4
A.S. or A.A. Degree	1	A.S. or A.A. Degree	1
Transfer	0	Transfer	0
Other:		Other:	

Table 5 shows that the majority of the students surveyed plan to complete a program that transfers to a four-year college.

Table III-6

Credit Math Goals of
Developmental Mathematics Students
Winter, 1981

MALES	MATH COURSE		FEMALES	MATH COURSE	
16-22	101-102	5	16-22	101-102	3
	118-119	10		118-119	1
	121-122-123	8		121-122-123	0
	181-182-183	4		181-182-183	10
	161-162-163	14		161-162-163	13
	141-142-143	1		141-142-143	1
23-30	101-102	0	23-30	101-102	2
	118-119	1		118-119	1
	121-122-123	3		121-122-123	0
	181-182-183	1		181-182-183	2
	161-162-163	9		161-162-163	3
	141-142-143	2		141-142-143	0
31-40	101-102	1	31-40	101-102	1
	118-119	1		118-119	0
	121-122-123	2		121-122-123	0
	181-182-183	0		181-182-183	2
	161-162-163	2		161-162-163	4
	141-142-143	0		141-142-143	1
Over 40	101-102	1	Over 40	101-102	4
	118-119	3		118-119	0
	121-122-123	0		121-122-123	0
	181-182-183	0		181-182-183	0
	161-162-163	2		161-162-163	2
	141-142-143	2		141-142-143	0

Table 6 shows a high positive correlation with Table 5. Very few students plan to complete introductory technical mathematics; instead they plan to pursue courses generally considered to be transferable to a four-year college.

A description of content and entrance requirements for these courses follows on page 63.

Table III-7

Mathematics Background of Developmental Students

	Ages 16-22		Ages 23-30		Ages 31-40		Over 40	
	Males	Females	Males	Females	Males	Females	Males	Females
Genl. Math J. H.	68%	72%	50%	60%	67%	80%	83%	60%
Genl. Math S. H.	41%	51%	55%	40%	50%	50%	83%	60%
Bus. Math.	12%	28%	40%	40%	33%	40%	0%	20%
Pre-Algebra	32%	26%	5%	40%	0%	10%	17%	10%
Alg. I, Part 1	39%	56%	20%	30%	33%	20%	67%	20%
Alg. I, Part 2	29%	38%	5%	10%	17%	10%	50%	0%
Alg. I (One-Year Course)	39%	38%	30%	50%	33%	50%	17%	10%
Alg. II	34%	8%	25%	10%	50%	20%	33%	10%
Trig.	7%	0%	5%	10%	0%	0%	33%	0%
Math. Analysis	0%	0%	0%	0%	0%	0%	0%	0%
Calculus	0%	0%	0%	0%	0%	0%	17%	0%
Other:								
Geometry	10%	21%	15%	0%		10%		10%
Consumer Math	0%	3%						
Math 118	7%							
Economics				10%				
Bookkeeping				10%		10%		
Cost/Price Analysis								
Quant. Analysis								
Accounting								
Business Sta.								
Business Finance								
Accounting, Bus. Math, Tech. Math								

Almost all states require four years of English in grades 9-12; it must be restated that the Commonwealth of Virginia requires only one year of mathematics for graduation. Table 7 illustrates the variety and lack of preparation in terms of high school course work taken.

Northern Virginia Community College
Mathematics Course Content & Entrance Requirements[1]

MATH 101-102-103 Fundamentals of Mathematics I-II-III **(3 cr.) (3 cr.) (3 cr.)**

A study of concepts of numbers; fundamental operations with numbers, formulas and equations, graphical analysis, binary numbers, Boolean and Matrix algebra, linear programming, elementary concepts of statistics. Lect. 3 hrs. per wk.

MATH 118-119 Introduction to Technical Mathematics I-II **(5 cr.) (5 cr.)**

Applications of arithmetic, algebra, geometry and trigonometry to technical problems. Lect. 5 hrs. per wk.

MATH 121-122-123 Engineering Technical Mathematics I-II-III **(5 cr.) (5 cr.)**

A course in algebra, geometry, trigonometry, and introductory calculus stressing technical applications. Prerequisite: Three units of high school mathematics including two units of algebra and one unit of geometry or MATH 119 or equivalent and a satisfactory score on a proficiency test. Topics include functions, systems of linear equations, right triangle trigonometry, logarithms, exponentials, trigonometric functions, conic sections, vectors, complex numbers, differentiation, and integration. Credit cannot be obtained for both this course and MATH 161-162-163. Lect. 5 hrs. per wk.

MATH 141-142-143 Introductory Mathematical Analysis I-II-III (Calculus with Analytic Geometry) **(5 cr.) (5 cr.) (5 cr.)**

A unified course in analytic geometry and calculus. Prerequisite: Four units of high school mathematics including two units of algebra, one of geometry, one-half unit of trigonometry or equivalent and satisfactory score on a proficiency test. Students not adequately prepared for MATH 141 should complete MATH 161-162 prior to enrolling in MATH 141. Topics include functions, limits, derivatives, differentials, definite and indefinite integrals, infinite series, and applications. Lect. 5 hrs. per wk.

MATH 161-162 College Mathematics I-II **(3 cr.) (3 cr.)**

A course in precalculus mathematics. MATH 161-162 with MATH 163 completes a unified sequence in algebra, trigonometry, analytic geometry, and an introduction to calculus. Prerequisite: Three units of high school mathematics including two units of algebra and one unit of geometry or equivalent and a satisfactory score on a proficiency test. Topics include college algebra, functions, sequences and series, analytic geometry, logarithms, exponentials, matrices, trigonometry, and applications. Lect 3 hrs. per wk.

MATH 163 College Mathematics III **(3 cr.)**

MATH 163 with MATH 161-162 completes a unified sequence in algebra, trigonometry, analytic geometry, and an introduction to calculus. MATH 163 with MATH 261-262 provides a one-year calculus sequence designed for students with majors other than mathematics, physical sciences, or engineering. Prerequisite: MATH 162 or four units of high school mathematics including two units of algebra, one unit of geometry, and one-half unit of trigonometry or equivalent. Topics include limits, continuity, differentiation, and applications. Lect. 3 hrs. per wk.

MATH 181-182-183 General College Mathematics I-II-III **(3 cr.) (3 cr.) (3 cr.)**

Intended for students with majors other than mathematics, science or engineering. Prerequisite Algebra I and either Algebra II or Geometry and a satisfactory score on appropriate mathematics proficiency examinations. The first two quarters will include sets, the logic of algebra, the real numbers system, algebraic and transcendental functions, relations and graphs. The third quarter will include permutations, combination, probability, elementary statistics, and trigonometry. Lect. 3 hrs. per wk.

MATH 191-192-193 Finite Mathematics I-II-III **(3 cr.) (3 cr.) (3 cr.)**

This course is intended for students with majors other than mathematics, physical sciences, or engineering. Prerequisite: Three units of high school mathematics including two units of algebra and one unit of geometry or equivalent and a satisfactory score on a proficiency test. Topics include sets, logic, probability, statistics, matrices, markov chains, linear programming, game theory, and mathematical modeling. Lect. 3 hrs. per wk.

---

[1] "Course Descriptions," *Northern Virginia Community College Catalog*, 1981-1982, p. 142.

Appendix C

Northern Virginia Community College
Manassas Campus
Developmental Courses in Programmed Mathematics
1980-81

I. **Purpose:**

To qualify you in the basics of arithmetic, algebra, geometry and trigonometry.

II. **Programmed Instruction:** In programmed instruction:

1. You proceed at your own speed.
2. Each problem is broken down into the smallest of steps.
3. The overall goal of the course is *mastery* of the material.

III. **Placement Testing:**

In order to establish where a student should begin his course of study, *every* student (unless he has been here the previous quarter) will be given a placement test. This test will determine where a student should begin a given course.

IV. **Testing Within Course:**

Your progress is measured by the completion of a series of tests to be taken when you reach key points in the text, usually at the end of a chapter or at the end of some other definable unit. All tests are taken in the Learning Lab; testing instructions are set down in Section VII.

We wish, at this point, to state our view that a test is not a weapon nor a threat to force you to study. It is a tool for measuring, however approximately, the progress made toward the objective stated above; in these terms, the test is useful equally to student and instructor in answering the question: Has the student the skill he needs for success in the next step?

V. **Grading:**

The following criteria for grading have been set up:

1. An "S" is earned for satisfactory completion of the total number of tests specified for your final goal in MATH 001.
2. An "R" for re-enroll means satisfactory progress is being made but that the student has not yet completed the total number of tests specified.
3. A "U" or "W" means that a student should take another reading on his motivations to see if he/she wants to continue.

VI. **Mid-Term Evaluation and Central File System:**

At mid-term, your instructor and possibly a counselor will evaluate your progress and advise you informally of your standing. This evaluation will be recorded on a separate "Record Sheet," which will be kept by the Instructional Assistant in a Central File System. This evaluation and complete record of tests will be kept for all students to determine and record a student's progress from quarter to quarter and will also include a final comment and recommendation by the instructor.

VII. **Instructions for Tests:**

1. Once a test is started, it is to be completed in one sitting.
2. Note that you may take a test any time during the scheduled testing hours in the Learning Lab. If you wish to take a test during class time, please check in with your instructor before going to the Learning Lab.
3. Bring your own pen, pencil, eraser, and ruler to take a test.
4. The instructional assistant will furnish the test, the blank answer sheet scratch paper, and graph paper.
5. Sign in each time you wish to take a test.
6. DO NOT WRITE ON THE TEST PAPER. Enter all your answers on the answer sheet.
7. Check your answer sheet for *legible* entry of the following: your name, your instructor's name, your class section (e.g. 001-02); the test number, the test form (A, B or C) and date.
8. When taking tests, do not ask the instructional assistant for help in solving exercises on the test. However, clarification with regard to legibility of the test will be gladly furnished.
9. The grade result of a test taken by a student probably will be available, at the earliest, at the next scheduled class meeting following the day of the test. Demands for immediate grading may not be met.

VIII. **Attendance:**

Attendance is mandatory (70%) and will be taken at each class session as part of the record of the factors which might be influencing the student's learning. Good attendance is closely related to success in Developmental Math.

IX. **Office Hours:**

Take advantage of our availability to you, not only in the Learning Lab, but also *in our office*. Your instructor will provide you with his/her office hours.

X. Tests and Texts

ARITHMETIC: *Success in Mathematics*, Part I, Euel Glenn, Latest Edition.

TEST NUMBER	TOPIC NUMBER
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
FINAL	Topics

ALGEBRA I SYLLABUS, Alwin & Hackworth, *Algebra-Programmed*, 1978, Revised Editions, Book I & Book II.

BOOK I	
TEST NUMBER	CHAPTER NUMBERS
1	1 & 2
2	3 & 4
3	5
4	6 & 7
FINAL	BOOK I

BOOK II	
TEST NUMBER	CHAPTER NUMBERS
5	1 & 2
6	3 & 4
7	5
8	6 & 7
9	8
10	9 & 10
FINAL	BOOKS 1 & 2

ALGEBRA II SYLLABUS, Alwin, Howland & Hackwork, *Algebra-Programmed*,1980, BOOK 3

BOOK III	
TEST NUMBER	CHAPTER NUMBERS
1	1
2	2
3	3
4	4
5	5
6	5
7	7
8	8
9	9
10	10
11	11
12	12
FINAL	BOOK III

Introduction to Geometry, Allyn J. Washington

TEST NUMBER	UNIT NUMBER
1	1
2	2
3	3
4	4

TRIGONOMETRY

A Programmed Approach to Trigonometry, Leon F. Sagan

TESTS MADE UP BY INDIVIDUAL TEACHERS

XI. Self-Pacing and Setting Goals

Although developmental math is a self-paced course, the student should set a goal for himself. A counselor and your instructor will help you plan a schedule suited to your individual needs.

XII. Supplemental Materials:

A number of supplemental materials can be found in the Learning Lab for use by students in MATH 001. Please feel free to use them.

XIII. Conclusion:

Developmental Math is individually suited to you. Your professors are highly interested in your progress. Please feel free to contact them.

Appendix D

Guidelines for Goal Setting[1]

If you don't know what you want, chances are you'll never get it.

I. Is the goal *achievable*?
   a. Do you have enough time to "complete" the goal you are setting?
   b. The achievement of this goal *should depend on you*. Try not to rely on persons or conditions outside of your control.
      1. Goals which continually require the cooperation of others are obviously more risky than those which you can accomplish on your own.
      2. At the same time, an occasional goal relying on others for discussion, etc., is acceptable.

II. Is the goal *believable* to you? Do *you* want to do it?
   a. Obviously, there are situations when the appropriate goal is to do what you should or are required to do.
   b. Nevertheless, "shoulds" are rarely very motivating or satisfying unless we are basing our identity very heavily on what others think of us.

III. Is the goal *measurable* in specific, concrete terms?
   a. How will you know when you have completed your goal?
   b. Ask questions like "where?, how many?, how often? etc. when formulating your goals.
   c. A time-limited goal provides feedback on your progress.

   EXAMPLE:
   Unmeasurable goal — I will improve my relationship with my family.
   Measurable goal — I will eat dinner with the family three nights each week.
   Unmeasurable goal — I will work harder on my assignments.
   Measurable goal — I will read Chapter II for next Tuesday's English class.

IV. Is the goal presented *without an alternative*?
   a. Have you made a decision? Are you focused in on what you will be doing? Can you picture yourself completing the task?
   b. Either/or goals divide your energy and attention.
   c. You may choose to set two goals but you are then accountable to yourself for both, not just one or the other.

   EXAMPLE:
   Not Acceptable — I will read Chapter IV in my Psychology text or I will go to a movie on Friday night.
   Acceptable — I will go to a movie on Friday night.
   Acceptable — I will read Chapter IV in my Psychology text.

V. Can you break this goal into smaller "steps" (sub-goals) to aid in its completion?
   Example:
   Goal — I will write my history term paper by the sixth week of classes.
   Sub-Goals — I will choose a topic for my term paper by the second week of class.
   I will finish research for the paper by the fourth week of class.
   I will write my history paper by the fifth week of class.
   I will finish typing my paper three days before the final due date (November 2, 1979).

[1]Adapted from James D. McHolland, Human Potential Seminars, 1972.